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S o l u t i o n s f o r W o r k , P l a y & E d u c a t i o n

Video Active

Exclusive Desktop Tutorial

Video Software For Every Budget

Back to Basics and Tips and Tricks

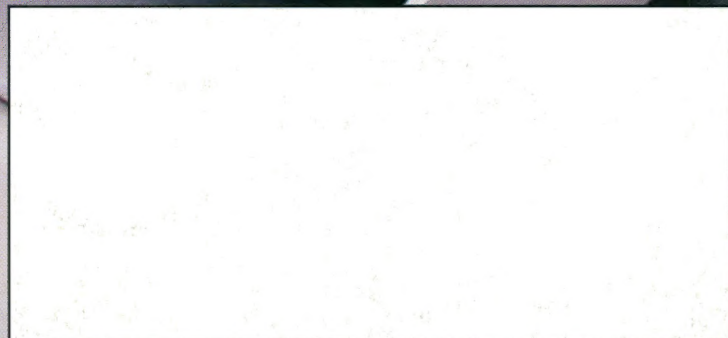
**New Back
Page** by Andy
Ilnatko!

Best Products **7th Annual Home Choice Awards**

4 Out of 5 Editors Agree

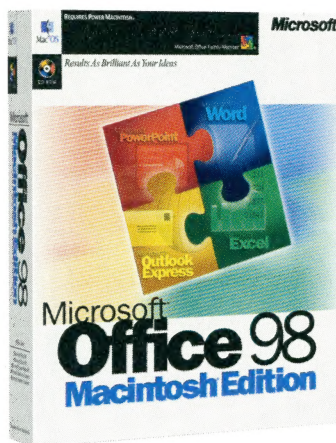
19 Hot New Games

Game Expo Spotlights Mac





jet.



fuel.

Now that you've got that hot, new computer, wanna really make it go? Get Microsoft® Office 98 Macintosh Edition.

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volume 7, number 8

The Video Issue

Take the Director's Chair! _____ 14

By Jeff Battersby

So, you've got hours of video footage and an editing program. Now, how do you turn all those precious moments into one cinemagraphic masterpiece that evokes tears and laughter? We'll give you some tips and show you how it's done.

Video for All!

A Guide to Video Software _____ 20

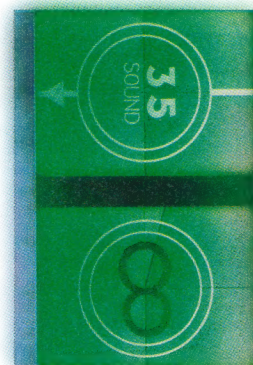
By John Poultney

Don't think you have to have a big budget to get going in desktop video; all you really need are big-budget ambitions. Here's a guide to the important video software out there for the Mac, for pocketbooks great and small.

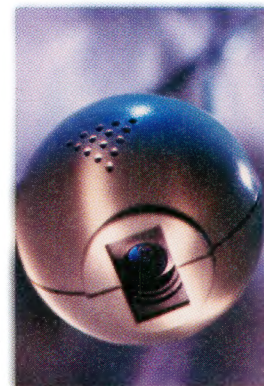
Home Choice Awards

MacHome Picks the Best Products _____ 24

There's a lot of products floating around out there. How to zoom in on the best? Of course, most choices are ultimately personal, but the editors and contributors of MacHome are here for you with their picks of the best products in various categories. Read it and leap!



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NewsWire

Read all about it: news, products, rumors, gossip, quotes, and innuendo

- Macromedia unleashes Flash 4
- Reasonably priced color inkjets
- Ricoh's new digital shooter
- Fonts from the arts
- More USB modems arrive
- MACh Carrier G3 upgrade for Power Macs
- Deneba previews Canvas 7
- Epson's printer, scanner, copier combo



Ricoh's RDC-5000

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Our insurgent back-page columnist reveals many truths

Reviewed This Issue

Your Office: Software

- ★★★★ Acrobat 4
- ★★★★★ Adobe Type Manager 4.5
- ★★★★ Canoma
- ★★★★ Cruise Control 1.0.1
- ★★★★★ Final Cut Pro
- ★★★★ Suitcase 8

Your Office: Hardware

- ★★★★★ FireDrive Hard Disk Drive
- ★★★★★ InterView
- ★★★★ Palm VII
- ★★★★ TView Gold
- ★★★★ VST FireWire Drive

Entertainment

- ★★★★ America's Greatest
- ★★★★ Arcade Hits 3D
- ★★★★ Austin Powers: Operation Trivia
- ★★★★★ Railroad Tycoon 2
- ★★★★★ Carmageddon 2
- ★★★★★ Cyborg 3D

Your Family

- ★★★★ Amazon Trail 3rd Edition
- ★★★★★ Freddi Fish 4
- ★★★★★ Reading Blaster: Vocabulary
- ★★★★★ Star Wars Episode 1: The Gungan Frontier

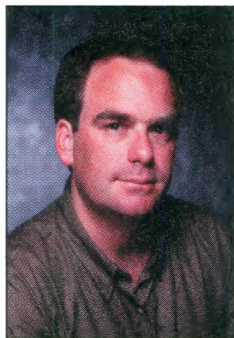
Our Rating System

- ★★★★★ **Mac-nificent.** You gotta get it. No flaws.
- ★★★★★ **Excellent.** Recommended even if it has a minor flaw or two.
- ★★★★ **Average.** Despite problems, still a worthwhile product.
- ★★★ **Below Average.** Has serious flaws that limit its usefulness or fun.
- ★★ **Poor.** Avoid this product at all costs.



Indicates iMac/G3 compatibility

from the chief [Editorial]



I'm Floating In A Most Peculiar Way

We computer journalist types have traditionally enjoyed lives of preferential treatment, reclining in our luxurious cubicles surrounded by the trappings of elegance. Indeed, most days we need merely snap our fingers to summon an eager coterie of assistants that carry us around the office in our swivel chairs.

And sometimes, companies seeking mentions in these pages go so far as to send favors of one sort or another — some imaginative, some not. Sure, we get the occasional coffee mug, the odd calendar or pen, the bottle of tabasco sauce. Are we swayed by such gimmickry? Of course not, but it sure is a lot more fun to get a camouflage flashlight, a bendable alien doll and (most significantly) a ViewMaster rather than another crushingly dull manila envelope.

Companies send us these things to pique our interest in new or upcoming products. Hey, fine with us. But the weird thing is that the one company for which readers are ravenous for more news — Apple, doesn't play this game.

We don't have an adversarial relationship with the Big A, but it's not like it once was. Used to be, we'd get pre-release briefings on Apple's latest, so we could prepare reports and reviews by the time the gear hit the streets. Under that arrangement, so the thinking went, everyone was a winner. Smiles all around.

But Apple got hurt by its own trusting, giving nature. Once word leaked out (through nefarious press leaks) that Apple was developing some amazing new product, buyers tended to adopt a wait-and-see approach. Sales of existing offerings suffered. Prices were slashed, stocks fell, jobs were lost.

These days, Apple doesn't do pre-release briefings like it used to. Hence, as we slide towards another Macworld Expo, we're hearing rumors of all kinds of great stuff. A powerful, compact, translucent PowerBook, for one. Redesigned iMacs for another. We believe some of the stories, but until we hear from Apple, they'll still be rumors.

This can be frustrating. In our June issue, we reviewed the 266-MHz iMac after the 333-MHz models came out. *Oops*. Well sir, when we did the review, 266MHz was the fastest, and rumors of the 333-MHz designs were all we had. The reviews section was done and printed before we did the news section (that's how most magazines are printed — in sections). Then we got word of the faster one. It happens.

Sometimes it seems ironic that Apple won't give info beforehand to its buddies in the press. But then again, look at how the company was doing while that was happening, then look how it's doing now. New stuff's coming. Just be patient, you.

John Poultney
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Write On

[Your Letters]

Handy? Sure it is.

In your article comparing the relative benefits of Netscape, MSIE, and AOL browsers (April 1999), you neglected one of the best features of Netscape: the User Profile Manager, which allows one to create different sets of bookmarks and preferences, and even e-mail addresses, for each user. Thus, my wife, when she opens Netscape 4.5, sees only the bookmarks she uses and not all my computer geeky stuff, and I, in turn, don't have to wade through her choices. I use Netscape and MSIE and each has its advantages. I also recently downloaded a preview version of a German browser called iCab, which is available online free (www.icab.de) and has the most features of any browser, but is rather daunting for nontechnically inclined users.

Michael Cox

Apple Class-Action Lawsuit Update

What's going on with the class action settlement now pending with Apple with technical support and Performas? Apple originally promised free tech support for these machines, then changed their minds. Where does it stand now?

MESOK9@aol.com

In a nutshell, effective March 1, 1999, Apple began providing live telephone diagnostic technical support at no charge to all original purchasers of those products. See www.apple.com/legal/techsupport/settlement.html for more on this weighty topic.

Printers "R" Us

Your review in the June 1999 issue comparing Epson and Hewlett Packard printers was the first one in which I'd seen an analysis of the per-page cost of the ink cartridges. This was enlightening and valuable information that I've not seen in other reviews, and which would have weighted my decision in favor of the HP had I seen it before buying my Epson last year (on the basis

of rave reviews in other magazines).

Users should make note of the mechanics of the cartridges and other qualities beyond quality of the end product.

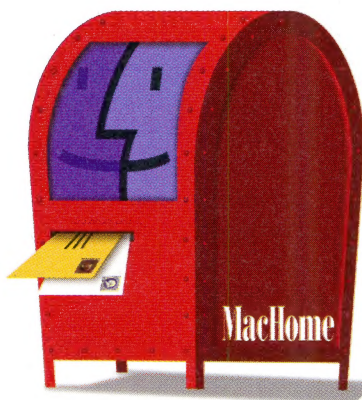
The buyer will have to live with the printer for a significant period of time, and since these days we often buy sight unseen on the Internet or through catalogs, we need a physical sense of the product — more than what you can get through pictures.

For example, I've found that the Epson printer cartridges in the printer I have now need constant attention and babying. They need to be cleaned frequently, using the software utility that comes on the CD-ROM, and, in the Color Stylus 800 at least, the printer goes through a seven minute cartridge analysis when you first turn it on. Also, error messages are misleading or just plain wrong. For instance, when the printer is out of paper, the error message says something like "the paper is misaligned." Silly, really.

Another review in the same issue concerned a USB-serial port adapter. Now that USB is becoming more widespread, some of us with older computers might want to buy a USB peripheral. Do these adapters work both ways?

Mary W. Farmer

Cartridges are truly the hidden pitfalls of the printer industry. I was taken aback myself by the cost of a replacement cartridge for an HP inkjet printer — close to \$40! Subsequent investigation indicated that the cartridge in most cases is the most complex component in the printer, containing not just the ink or toner but also the print head itself. Hence it is a good idea for printer buyers to ask about the cost of media, which they will surely need



to replenish from time to time.

Regarding your second question, nope, USB-to-serial adapters won't work both ways. Serial is a slower protocol than USB, so it works to translate a signal

from USB to serial but not the other way around. If you want to add USB peripherals to older Macs, you'll need a PCI card with USB ports; several are available from such manufacturers as Keyspan, Belkin, and Interex. Careful now — these only work with PCI Macs, not NuBus Macs, not PowerBooks, not SE/30s.

Again with the CISC and the RISC

I just read a letter in the June *MacHome* mag regarding RISC & CISC, and I must admit I was under the presumption that the RISC machine required "fewer" instructions to accomplish the same task. I was quite surprised to learn that RISC doesn't necessarily use fewer instructions — just fewer clock cycles. This might explain why — in my opinion — the early Power Macs don't seem substantially faster than the CISC counterparts. I assume there has been articles on RISC vs. CISC in the past. I'm wondering whether *MacHome* could publish this info to explain the differences in a bit more detail or at least point us to a Web site that does. Keep up the good work!

Bill Cooke

Oh, we've dabbled in the subject, but as you've seen, it's a rather technical topic. The fabulous "What Is" Web page (www.whatis.com), provides all kinds of straightforward explanations about most acronyms. It discusses RISC but not CISC. For a thought-provoking comparison of the two technologies, try an article in Indiana University's Knowledge Base, at <http://kb.indiana.edu/data/abig.html>.

History Books Are Written by Winners, Man!

Microsoft's operating systems seem to have suddenly caused people to forget how to alphabetize. In just about every other thing I read, whether in an article, software manual, or on the Web, I am annoyed to see that Windows is listed first, then the Mac OS. It usually goes something like this: This program is available for Windows and the Mac OS.

Excuse me? I don't know about the rest of you, but in grade school, I learned my ABCs and how to alphabetize. "M" definitely comes before "W" in my reality. So what gives? Okay, you want to get technical? How's this: Apple Mac OS, Microsoft Windows. Hmm ... seems that "A" definitely comes before "M." This may be a small thing, but it drives me nuts. When I read an article about Honda's line of cars, I see: Accord, Avalon, Civic, etc. ... Hey, it's in alphabetical order. Imagine that! Is this just an example of Microsoft's influence in the mainstream media? We know how much the "mainstream media" loves Apple. Does Microsoft now have so much power that it can now influence the English language? Man, what has this world come to?

Steven W. Smith

My Dog Hears Voices

Last night I downloaded Mac OS 8.6 Update and PlainTalk 1.5.4 from Apple. Today I started using PlainTalk. I now talk to my iMac and it talks back. We have been telling each other Knock-Knock jokes all day. My problem is that my dog is convinced that a man named Fred with a funny voice lives inside that blue box. I'm beginning to think that perhaps she might be right.

Don Barnes

Correction

In our June 1999 issue, the review of various speakers (Audio School) included a serious factual error regarding the Pele Apolla speakers. The reviewer indicated that the speakers' only control is an on/off switch, when in fact they include both volume and tone controls. Because the speakers were given a low rating in part due to this nonexistent shortcoming, we plan to re-evaluate them in a future issue.

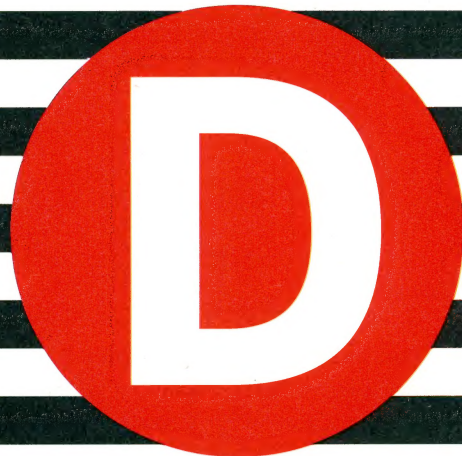
We also would like to point out that speakers such as the Pele and Cozo models are intended primarily to match the look of the iMac, while providing better sound than the built-in system. They are not necessarily meant to compete with systems designed specifically for sound reinforcement.

MacHome regrets the errors and misrepresentations.

write us!

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Macromedia Rolls Out Flash 4 at User Conference

Flash, Macromedia's vector graphics and animation program for Website design, got a facelift and a brand new version number just in time for the company's user extravaganza in San Francisco. **Flash 4** was not shipping as of press time, but it will be on the street as you read this for a price tag of \$299. Registered users of the previous version can get the upgrade for \$199.

Increasingly, Macromedia's Web development suite of tools — which includes Flash 4, Dreamweaver 2.0, Director 7.02, Shockwave, Generator, Freehand 8, and Fireworks 2 — is appealing to home users and small businesses.

Says Eric J. Wittman, product manager for Flash, "Home office users who want to

build a beautiful presentation for the Web, say a sales guide or a product catalog, can export (a file) from Freehand 8 as a Flash file and bring that into the Flash authoring environment. Then they can add interactivity and animation and export that out to the Web."

Flash 4 comes with a host of new features for folks who want to make Websites with, well, flashy graphics, interactivity, forms, sound, and other dynamic elements. The hottest new feature is Flash 4's support for MP3 streaming audio, which lets you mix

and synchronize MP3-compressed streaming audio with interactive buttons and animation.

Flash 4 also lets you create translucent graphics, overlay transparent vector (mathematically based, rather than pixel based) graphics onto bitmap (pixel-based) graphics, and vary the levels of opacity, transparent colors, and gradients.

The program's new sprite animation feature makes it easy to create cute Web thingies such as animated buttons, hierarchical and pop-up menus, checkboxes, and puzzle games that incorporate sophisticated interactivity. Editable text fields allow you to create really stylish Web forms instead of just plain old forms. The program also lets you embed specific fonts and font colors.

Flash 4 now allows you to morph, or change, any graphic across any number of frames. Shape morphing automatically animates the change from one shape to another without having to draw each little change inside of its own keyframe. A new, more user-friendly interface will ease the way for new users of the product.

The idea, says Macromedia, is to create the production values of television and combine them with the immediacy of the Internet, even over 28.8kbps modems. Who can view Flash content? Just



Going full Tilt

Just when you thought you had maxed out on iMac peripherals, here comes another, must-have: the **MacTilt** by Ergotron, a swivel-base pedestal for your iMac. This pedestal base lets you personalize your iMac, making it more comfortable and ergonomic (that means "good for your body").

No longer must you tolerate some engineer's estimate of at what angle you wish to view your screen. You can now make that decision yourself. This \$69.95 product is designed to give you a comfortable viewing angle, which also helps to reduce glare on your screen. It tilts 25 degrees and rotates 180 degrees.

Ergotron, 800-888-8458, www.ergotron.com.



Everybody Smile!

Ricoh has unveiled the **RDC 5000**, a professional-quality digital camera for Small Office/Home Office and home users who want to create high-quality images for advertisements, Websites, and photographs using their iMacs or G3s.

This camera, for \$699, sports a friendly 35MM point and shoot design while offering USB connectivity (as well as serial connectivity for older Macs), 2.3x optical zoom, 1.6-inch macro for close-ups, time lapse, and 8 MB of memory, expandable to 40 MB with a 32MB Smartmedia card. It also has a protective cover for the LCD viewfinder, so no more nose smudges!

Ricoh, 800-225-1899, www.ricohcpg.com



QuickTime 4 Arrives!

Yes! Apple has released the final shipping version of QuickTime 4, its multimedia software featuring streaming video and audio over the Internet.

Fox News and Fox Sports online join BBC World, Bloomberg, HBO and others using QuickTime to provide live online content. Download it for free from Apple's Web site. Get advanced features on the CD for \$29.99. Apple, 800-795-1000, www.apple.com/quicktime

Macromedia

Continued

about anyone on the Mac OS8 platform (Windows 98 too) who has an updated browser such as Netscape 4.0.6, Internet Explorer 4, or AOL 4.

One Flash enthusiast, Joshua Ulm of Quokka Sports, whose Website is almost totally in Flash, says it this way: "Flash lets you sit back and watch. There is the passive approach and the active approach. We try to do both. If you just want to sit and watch you can do that. But if you want to click around for yourself, you can do that too."

Flash 4, in addition to adding new functionality to its drawing tools, tightens the integration between Flash and Freehand, the company's drawing program. "We see Flash and Freehand as part of a multipublisher strategy for authoring for both print and the Web," Wittman says.

Freehand 8, another Macromedia creation tool, did not announce an upgrade at the conference, and product manager Brian C. Schmidt was reticent about exactly when things would be popping in that arena. But creating vector images in Freehand 8, and

then using its handy Export function to Flash is a really convenient way to animate images and type for Web publishing, the Macromedia experts explained.

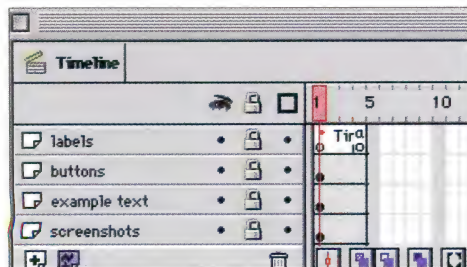
As Flash is not inherently an illustration program, there are limits to it for which Freehand can compensate, and which can help you add zing to an ordinary document.

"This is a basic, easy-to-use interface that does a lot of work for you if you're going to work on the Web," says Andrea Shannon, Macromedia graphics

specialist. "Say you're using an illustration program where you're making an ad, or a letterhead, or a label: Freehand and Flash allow those users to publish to the Web in an easy manner," Shannon says.

While not enough of an upgrade to warrant a brand new version number, enhancements to **Director 7**, which Web developers use to create multimedia, resulted in the announcement of version 7.02. Director 7.02 now includes support for streaming MP3 audio and DirectSound, QuickTime 4 streaming video, improved font performance, and, of course, support for the new version of Flash.

Macromedia, 415-252-2000, www.macromedia.com



Point 'n' Shoot

Making the transition from film to digital and don't want to spend an arm and a leg doing it? Epson has introduced the **PhotoPC 650** digital camera for \$349, targeted specifically to home and small business users of



iMacs and G3s. This camera gives you several resolutions of JPEGs in 24-bit color or grayscale.

The company bills this as an "entry level" product that features both USB and serial compatibility.

This little number comes with a CompactFlash card and USB Adapter cable, serial communications cable, video cable, alkaline batteries, and, yep, a wrist strap.

Epson America, 800-463.7766, www.epson.com

Deneba's New Canvas

Deneba's folks stopped by our office to demo the alpha version of **Canvas 7**, the all-in-one vector, bitmap, and text editing package for graphic artists, illustrators and all manner of design creatives. Canvas 7 is slated for launch on Sept. 1 for \$375.

The version we saw was a pre-release, but it looked mighty nice. Among the new features are that Photoshop plug-ins, previously used only for bitmapped (or pixel-based) images can now be applied to vector (or mathematical) images and edited.

Deneba also revamped the drawing engine and included "smart shapes," a handy library of common shapes like arrows and voice balloons, resizable even.

If you want your art to be posted on the Internet, you can now create animated GIFs. And Deneba has included an HTML export feature to write your code. Deneba, 305-596-5644, www.deneba.com

It's a Printer ... No, It's a Scanner ... No, It's a

In the old days, you needed several machines, each with its own discrete role, to fulfill all of your home office needs — forcing you to fork over hundreds of dollars and taking up valuable office real estate. No more. Today, you can buy a printer that is a scanner that is also a copier, all in one carrying case.

Epson has introduced its **Stylus Scan 2000**, a combination scanner, printer, and color copier for \$349. Print resolution is 1440 x 720 dpi in four colors. Scanning resolution is 300 dpi with 30-bit color. The device supports a USB or parallel interface and is compatible with the (other brand) of PC in your life.

And if that's not enough, you can even choose the color to match your lovely iMac or G3.

Epson America, 800-463-7766, www.epson.com



iSee You

The **iSee USB digital video camera** — now available for the Mac for \$140 — lets you take both motion and still pictures, as well as saving, printing, and playing. Your images can be used on the Web for multimedia, for video conferencing, and for video mail. It sports a ball-shaped body whose angle you can adjust — it can be tilted up or down or moved in different directions. It also features a lens mounted on a Focus Wheel, which you can adjust it with your fingers. Its focus ranges from 10 mm to infinity. Don't worry about unexpected movement on your desk or monitor — this camera has anti-slide rubber at the bottom of its base so it holds still while the camera is working. (However, you will want to keep your camera in a stable environment, anyway.)



One neat option for the **iSee** camera is the five-piece **iRis Lens Kit** in iMac iCandy colors for \$60. Choose from close-up for your documents to wide-angle to capture a room. Each colored wheel

has different focal lengths and viewing angles. To install, unscrew the current lens from your iSee and screw in the iRis lens.

The company has also come out with the **iFloppy**, a USB floppy drive tailor made for the G3 or iMac for \$100.

Ariston Technologies, 800-326.5294, www.ariston.com

Three Cheers

Hewlett-Packard announced a trio of low-priced, color inkjet printers that are real charmers. The **HP DeskJet 612C** and the **610CL** carry a street price of \$129 and \$99 respectively, and they are targeted to first-time buyers and home users. These printers, which have parallel ports only, let you print in black or color at between 2.5 (color) and 5 (black and white) pages per minute.



The DeskJet 812C, which goes for \$199, lets you produce photo-quality documents with its advanced color technology. It cranks out 6.5 pages per minute in black and 4.5 in color. This model has both USB and parallel ports.

Hewlett-Packard, 800-752-0900, www.hp.com

A New CPU

How attached we all become to our equipment, and how heavily invested, too. So if you're using one of the older Power Macs — say from the 7300, 7500, 7600, 8500, 8600, 9500, and 9600 series, and also from several of the Umax, Power Computing, and DayStar clones — you can quit gazing at those blazin' fast G3s, because there's an alternative upgrade path.

The **MACH Carrier G3 CPU Upgrade Card** from XLR8 lets you remove the CPU and cache (really not for the faint of heart) from the primary card, and then upgrade later with standard Power Mac G3 daughtercards. Because the CPU is removable, you can upgrade over and over again. This is fully compatible with OS 8 and OS X Server. If you want to upgrade to 300 MHz, it'll cost you about \$500. If you want to move at 400 MHz, that'll be about \$819. Other speeds and prices fall in between. *XLR8, 800-456-8000, www.xlr8.com*

Diamond Drives into USB

If you have a USB-based G3, and seek an external modem that matches your style,

Diamond Multimedia Systems has just come out with the **Supra-Express 56** USB modem.

This \$99.95 device supports the 56K ITU standard (that's v.90, but you knew that) and supports both Mac and that other platform. To install, just plug the thing into your USB port.

Zoom Telephonics is back in the Mac game, now shipping the Zoom FaxModem 56K USB modem for an estimated price of \$79.

*Diamond Multimedia, 408-325-7000, www.diamondmm.com
Zoom Telephonics, 800-666-6191, www.zoom.com*



Your CDs Are Toast

Adaptec has released **Toast 4 Deluxe**, an upgrade of the CD-ROM burnin' software that lets you create your own data, audio, or multimedia CDs to blare out of yer computer or CD player. The new version, available for \$99, supports the burning of authorized (that's "legal") MP3 songs.

It also includes CD Spin Doctor, which will help you digitize your LPs (remember those?) onto CD and get rid of all their weird pops and hisses.

The software also gives you access to the CDDDB online Disc Recognition Service (www.CDDDB.com) where information about songs is available, as well as the ability to download and burn encrypted Liquid Audio music files. *Adaptec, 800-442-7274, www.adaptec.com*

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A Doctor in the House?

NeTopia has debuted **HouseCall**, a utility for Mac power users who find themselves in the position of coaching Mac newbies, and Windows refugees. Use **HouseCall** to observe or control a remote Macintosh machine just as if you were sitting in front of it. You can troubleshoot, diagnose, and resolve user problems from any location.

HouseCall allows you to access the hard drive of a friend's or relative's machine and transfer files to or from it. Just connect to your "Patient," and select and drag files.

You can also find "patients" on the Internet, including users with addresses given to them by their Internet Service Providers.

The "Doctor" version is available on the Web for free. Anytime you are on the road and need to connect to another person's Mac, you can reach your "patient" right away. Patient versions of HouseCall are licensed in single, two, and ten-packs.

And if you're worried about hackers—don't. HouseCall's 'Ask for Permission' feature insures complete security over any TCP/IP or Dial Direct connection. By going to your control panel, you can request to connect to another computer with the "Patient" version of HouseCall installed. The "Patient" must give permission to establish a connection and perform remote control and file transfer activities.

NeTopia, 800-485-5741, www.netopia.com



Font Fanatics

Fonts are a touchy subject—either you are really love 'em and collect way too many of them for your own good, or they bore you to tears. For those in the former group, P22 Type Foundry, known for its unusual and decorative display fonts, is featuring the preserved handwriting of famous artists along with some of their line drawings, which almost look as good as the real thing. It has just released **Monet** and **Hopper** (handwriting font for the French impressionist Claude Monet and the American artist Edward Hopper). These fonts (obviously) have an artistic edge and a definitive purpose—to beautify your documents with a faithful rendition of the artist's own very legible handwriting.



P22 features all manner of historical typefaces, including both images and letterforms. The company works closely with museums and foundations to develop historically accurate products.

Because these are fonts, they can also be typeset in an image editing or illustration program and made into small GIFs for your Web site, and this is very convenient.

Additional artists featured by P22 are the esteemed Leonardo Da Vinci, Paul Cezanne, M.C. Escher, Auguste Rodin, Vincent van Gogh, and others. Individual fonts cost \$23.95

But there's more. The entire contents of P22's outrageously gorgeous catalog, entitled *Planet of the Fonts*, is available on one CD for \$499.95. It contains some 34 original faces to suit your fancy from Child's Play, a hand-drawn alphabet by a genuine five-year-old (they tell us), Daddy-O, your basic beatnick font, Hieroglyphic, borrowed from the ancient Egyptian face, and many more.

P22 Type Foundry, 800-722-5080, www.p22.com

Clip Art is the Cat's Meow

OK webmasters and mistresses, hold on tight because there's another really super cool CD with impossibly cute clip art illustrations for your site. FontHaus has released **Web Parts—Art Parts for the Web**, a brand new collection of more than 1,400 animations and still images for your online design. Inside this CD, which sells for \$169, you'll find 300 "goofball" animations and 1,100 still images, borders, and background tiles. The best part is that you have to do absolutely nothing but stick the picture in your images folder and set your image tag. All files are saved as Web-safe colored GIFs, a graphics file format used on the Web.



For more advanced users, the CD also includes high-resolution Adobe Photoshop files for each still image, still border, and background tile. Each file is saved at 300 dpi, many with layers, giving you maximum flexibility.

And, you don't have to scroll through each image on the screen to find the one you want because a full-color catalog is tucked neatly into the cover of the jewel case. FontHaus, 800-942-9110, www.fonthaus.com

News Flash: Corel

Corel announced it is readying two major products for the Mac SOHO and home market. They are **Corel Print Office 2000** and **Corel Print House 2000**, for the entry-level graphics market. Both will be released in the next few months, the company says. Stay tuned... Corel, 800-772-6735, www.corel.com

Introducing
the video
editing tool
to clean up
your videos.



Cut it out!



shing solutions coming soon for Macintosh! So, if you can capture it, you can do whatever you like with it. Record out to video tape, burn it onto a CD-ROM, publish it on the Internet, or e-mail it to your in-laws in Wisconsin. This means your home movies can end up in anyone's home, or office, or Web site. For more information on the entire Avid Cinema line, please visit www.avidcinema.com.

Introducing Video Pak,
Web Pak and Soft Pak –
the 3 new Avid Cinema
video editing and publi-

Avid Cinema®

take the director's chair

There was a time when making movies meant shooting rolls and rolls of film, spending wads of money to get it developed, and making use of cumbersome, expensive editing equipment in order to weave your collection of filmstrips into a single cohesive epic. For video productions, you had to rent out time in an editing facility. But these days, with the right software and bit of gear, you can create, edit, and distribute movies right from your Mac — all without spending a dime for processing or editing fees. Granted, these tools aren't cheap, but the payback in time and effort is immense.

You'll need a video camera, a relatively fast Mac, a video-capture device, and video-editing software. You might also want to use scriptwriting software, which will help you to lay out your project from the outset. For a roundup of software and other related video gear, take a look at Video Free-For-All on page 20. Here, we're going to take you through the process of producing a video. I'm using an iMac, a Sony video camera, Avid Cinema for video capture and some editing, and Adobe Premiere for some high-level editing. But no matter what kind of gear you have, the process has many of the same steps.

Building a Storyboard

Any good professional film begins with the creation of a storyboard, and it doesn't hurt to take a lesson from the pros. Simply put, a storyboard is a scene-by-scene outline of your completed movie. A good storyboard consists of shots you want to make, scenes you want to shoot, listings of characters within each scene, and transitions or other potential elements that will help you move from one scene to the next. While it might be obvious

By Jeff Battersby

that this is necessary for “real” filmmaking, you’ll also find it indispensable for turning your home videos into complete, compelling stories as well.

Avid Cinema has a built-in storyboard editor with several templates for producing everything from business videos to birthday parties. If you’re writing a script — detailing in words how the story will proceed and what the characters are going to say — you’ll discover that most scriptwriting programs, such as FinalDraft Inc.’s FinalDraft and Screenplay Systems’ MovieMagic Screenwriter (both \$299), have storyboarding built right into the programs as well. The beauty of scriptwriting programs is that they build the storyboard behind the scenes while you go about the work of writing your script. Or, in the event that you want to outline your story first, these programs will allow you to build the storyboard and then create your script around the outline.

If you don’t want to buy either of these programs, you can simply use a set of index cards to set up individual shots and scenes. After all, this is the way that screenwriters and movie editors have handled the job for years.

While you’re creating your storyboard, ask yourself these kinds of questions: What story am I trying to tell? What are the setting, the climax, and the resolution of the story? How can I best show that story using images? What camera shots will emphasize my story without distracting the viewer? What types of transitions should I use to move smoothly from one scene to the next? While some of these questions may seem extreme for putting together

a video of your daughter’s birthday, you’ll discover that, instead of stringing together one incoherent video segment into the next, you’ll actually be able to make something truly engaging out of footage that might otherwise have been a bit dull for everyone else but you and your movie stars.

Taping the Footage

Once your storyboard is complete, it’s time to begin the taping process. You’ll definitely want to use your storyboard as your guide. But if you’re filming something of a spontaneous nature — such as a wedding or a birthday party — don’t be afraid to shoot something outside the parameters of your original concept. While it’s important to know where your story is going, you won’t want to miss special moments that take you by surprise.

If possible, shoot your scenes several times until you’re satisfied with what you’ve done. Later, when you get to the editing process, you’ll be able to take the best of what you’ve shot and mix it into the finished video. Also, make sure to take shots of the same scenes from different angles and various distances. Multiple points of view make a scene more interesting and allow you to add more variety to your video project. You should also be sure to take shots of your surroundings. This will allow you to give a visual context to your project.

Multiple points of view make a scene more interesting and let you add more variety to your project.

Remember that it’s much better to have too much footage to choose from than it is to lack a shot that you wish you had.

Although it may seem a tad pretentious to walk in front of the camera before each scene and yell, “Scene 3, Take 2,” it’s wise to somehow mark the beginning of each take with some kind

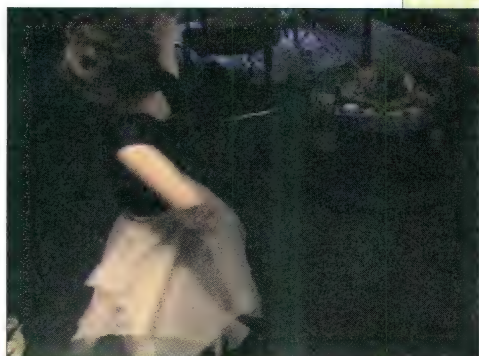
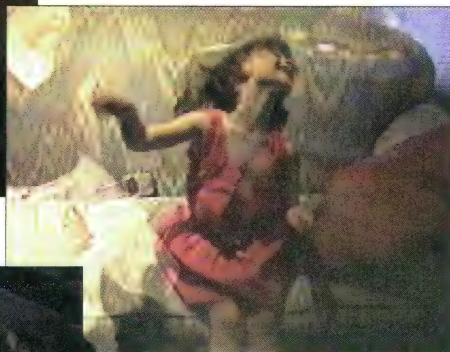


Video Editing Programs make it incredibly easy to add your own titles, turning home movies into pro-quality productions.

of break. Taking this simple step will make the editing process much easier. You should also keep track of each scene using a notebook or, if you’ve got a hard copy of your storyboard, making notations about each shot on the storyboard card that pertains to the shot.



Use transitions to move gracefully from one shot to the next. Shown here is a simple dissolve.



it or copy and paste segments.

During the importing process you should make reference to any notes you've kept while shooting the video. This is the area where taking notes really pays off. Using your notes you'll be able to quickly move to specific scenes rather

than having to jump back and forth through all your footage until you've found the scene and take that you're looking for.

Rather than importing all of your video footage at once, you'll be better served by importing each take individually. By doing this you'll make it easier to add each scene to your project, and you'll cut down on editing time. While it's possible, using Premiere, to import an entire video and then cut out the segments that you don't want to use, you'll use less disk space and waste less time if you import each of the segments individually.

Editing the Videotape

Editing is the foundation upon which professional filmmaking rests. While editing, you take disparate segments of the video and knit them into one coherent whole. With judicious use of transitions, you can take the individual segments of your project and shape them into something worth watching.

The Avid Cinema package comes with a rudimentary, but sufficient, video-editing program. For most purposes it will work perfectly. After the import, each of your newly imported segments appears on a timeline. From this timeline you can rearrange the segments and preview your progress. If you have excess video at the beginning or the end of a segment, you can easily cut out the extraneous portions with a simple click-and-drag. From Avid's editor you can also import audio, such as music taken directly from a CD, and add voiceover and title overlays. Avid is limited in the way it handles titles, however. You can only scroll or slide the text from four directions, but again, for most people these features are more than sufficient.

If you're looking for an industrial-strength video-editing program, you'll need to grab a copy of Premiere. Premiere contains a plethora of features that give you total control over your video editing. First, Premiere lets you view each video segment on a frame-by-frame basis. This allows you complete accuracy when you're cutting portions of a scene. Also, when you import a video segment, Premiere imports audio into a

Importing Your Video

Once your taping is complete, it's time to import the video you want to use to complete your project. The Avid Cinema for Macintosh package includes a small video-capture device and the software necessary to capture video from your camcorder and put it onto your Mac. Simply speaking, this little box converts the output from a camcorder or VCR to a format that your Mac can understand and use.

Both Avid Cinema and Adobe Premiere allow you to directly import video. If you've created a storyboard using Avid, you'll discover that you can select a scene from your storyboard and then import a video segment right into that specific segment. Once you get to the editing process, every scene will already be in its proper place. All you need to do is properly cut each segment and add the transitions.

Premiere requires you to take one additional step. First you have to import the video and then you need to add the imported video to your project folder. While this may seem less efficient than the process in Avid Cinema, it affords you the advantage of being able to reuse a video clip without having to re-import



A simple storyboard in Avid Cinema. Storyboards allow you to plan out the whole film in advance, providing you with a guide.

separate audio track. This makes it possible for you to cut out a portion of an audio segment without affecting the video associated with the audio track.

Premiere also provides access to features that would be extremely difficult



When you tape your footage, take many different shots of the same subject — you never know what you might need.



to implement with film. At the top of the list is compositing, which allows you to film your character using a colored — typically blue — background and place a different scene behind the character. This is the type of editing news stations use when the weatherperson is pointing to a map displaying the current weather.

Using such features as these for your own video allows you to give the impression that the scene you're shooting is taking place in some exotic location when, in fact, it's really only on a set. Premiere also has tools that allow you to animate static graphics; overlay mattes, such as images-within-images; and apply filters for special effects, much like the filters in Adobe Photoshop. You can produce such effects to make elements in your scene blur, appear in soft focus, or glow like hot neon, in the tradition of MTV.

Adding Transitions

Both Cinema and Premiere provide you with a liberal number of transitions, which are different ways of moving from shot to shot. But just because you have so many to choose from doesn't mean that you have to use them all. Transitions should be used to provide a comfortable segue from one scene to the

next. Using too many or too-unusual transitions will distract your viewers from the story you're trying to tell. In fact, it's a great idea to plan your transitions while you're still in the storyboarding process. That way you'll be able to prepare for them while you're shooting each scene.

The most common, and least obtrusive, transition effects are Fade-In/Out, Dissolves, and Wipes. And if you pay any attention to movies or TV shows, you'll discover that these are the types of transitions that are most commonly used. Avid makes adding a transition very easy. You simply select the video segment that you want to segue from and then select the transition that you want to use. The program allows you to adjust the transition length in half-second intervals up to a total of six seconds.

Adding a transition in Premiere is a bit more difficult; you have to separate your transition clips into two different editing areas so that they can overlap on a timeline. You then place your chosen transition on a transition track so that it falls

between the overlapping area of the two video clips. It's not entirely intuitive, but it does give you the freedom to create transitions of any length you please. Premiere also gives you the added advantage of using QuickTime transitions in your project, as long as you've upgraded to QuickTime Pro.

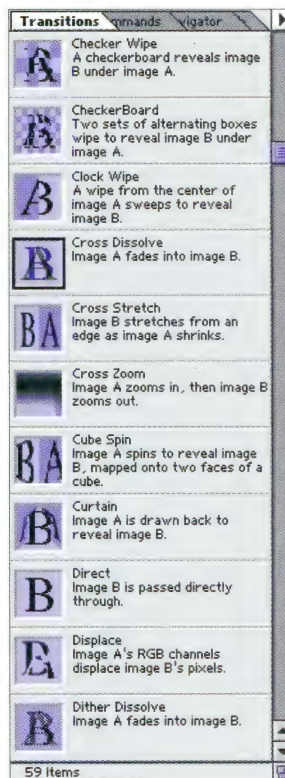
Appearing on a Monitor near You

After you've finished all of your editing, it's time to publish your movie. Both Avid and Premiere allow you to save your project in a variety of formats — from Microsoft AVI files to QuickTime. The key issue that you need to keep in mind is how large you're willing to let your video file become. The combination of sound taken from CDs, text titling, and high-quality video can result in a significant amount of expended disk space. For example, the two-minute,


thirty-second preview of *Star Wars, the Phantom Menace* was 25MB in size. So you'll want to consider your audience and the way that you plan to distribute your final product. If you're going to distribute your movie over the Internet, you'll want to make sure that the file isn't so large that no one will want to download it. If you plan to e-mail it to all your friends and relatives, they may not be thrilled if you tack a 20MB file onto your next e-mail message. Whatever the case, both programs will allow you to adjust the quality and size of the final product so that it will fall within your desired parameters.

So what are you waiting for? Grab yourself a camcorder and fire up your Mac and video editor of choice. Before you know it, we'll all

be watching your work on the "big screen." 



Premiere's transitions give you much creative control over the individual shots in your video.



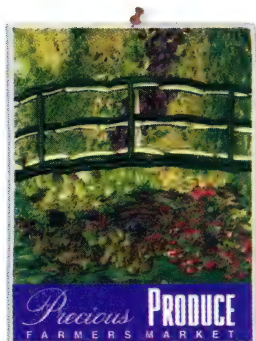
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Video for all

Digital Video Options
Abound for the Mac

By John Poultney

You've no doubt been bedazzled, bemused, maybe even bewildered by the wonders of digital video. Perhaps your knowledge of this technology is long standing and varied; perhaps it's only just begun. But whatever your level of expertise, action awaits you in the world of video on your Mac.

Digital video works by converting standard video, like you'd get from a VCR, into files comprised of numeric codes. These files are read by Mac software (such as QuickTime Player), which tells your system exactly where and when to display each pixel on the monitor, as well as playing back the audio tracks that go with the video.

Great, you say, but I have a TV already. What's the advantage?

The advantage is that, unlike a TV/VCR setup, modern Mac video software can take any portion of the video information and perform elaborate edits, color changes, and other machinations that give you a high level of creative power. With this setup you can create great-looking video projects with the same level of control for editing, effects, and titling that professionals enjoy.

More for Less?

Such options would cost many thousands of dollars if contained in a "conventional" video-editing and effects setup, which would normally include two VCRs (one for a video source and one for recording an edited tape), effects and transitions hardware, a time-code generator, a character generator for titles, and several monitors. And let's not forget the yards and yards of expensive cabling to tie it all together.

Nowadays, all the functions of this elaborate hardware can be performed with your Mac (the iMac and newer blue G3s are best, but you can also do a lot of this stuff with slightly older Power Macintosh models).

With digital video software, you can take video from several video "source" files, add sounds, titles, narrations, and

transitions (such as dissolves and "wipes," where one image replaces another on the screen) and edit the whole shebang into a new file. Once you're done, you can view the file on your system, post it to a Website, or even — in some cases — transfer your work to a regular videotape for the whole family to enjoy.

Editing methods vary among programs, but most work with a representation of a timeline. You place clips — segments of video or audio — in the timeline and arrange them as you like so the software plays them back in the order you choose. Normally what you see on the screen will be from one video source or another (imagine switching the TV channels), but you can see two or more clips at once if you like (a process called superimposing). Through various methods, you can select ways in which the video and audio clips transition from one to another (such as the aforementioned wipes and dissolves) or how quickly a scene fades to black.

Digital video programs come in several shapes and sizes, some of which can be quite complex. There's something for every directorial temperament, whether you intend to put together a retrospective of your child's fourth birthday or

want to become the next Ingmar Bergman. Here's a listing of applications you might want to explore.

Avid Cinema

Avid's \$240 **Cinema** is a good starter package for folks just getting started in video. It's simple, but it has most of what you'll need for creating basic videos. In fact it even has preconfigured video "templates" for common projects (soccer game documentaries, birthday parties, vacations, and such) into which you can just plug your own video. The software has a library of built-in transitions that are easy to use and provide simple but attractive titling functions. Cinema was initially only for use on G3 Macs with an Apple video-capture card (available only as a built-in option), but the company recently released a \$299 USB version for iMacs and blue G3s. *Avid Technology, 800-949-2843, www.avid.com*

Strata VideoShop

Another consumer-level product, Strata's **VideoShop**, also provides a simple approach to constructing video projects. It's a pretty straightforward product — one that most users should be able to



figure out pretty quickly. VideoShop has a neat audio function called TuneBuilder, which lets you construct a stirring audio track that fits appropriately to your video track, whatever the length. Of course, you need to use some preconfigured music to do this, but it's still pretty darned handy. VideoShop's list price is \$495, yet the full version is bundled with XLR8's InterView USB video capture device for just \$99. Not a bad deal.

Strata, 435-628-5218, www.strata.com
XLR8, 800-456-8000, www.xlr8.com

Adobe Premiere

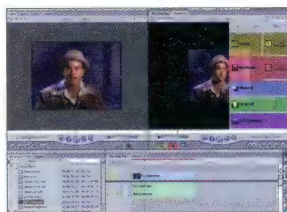
The original "Desktop Video" program, **Premiere** has led the pack for quite some time now. Now at version 5.1, this \$895 (list price; street price is closer to \$600) package may be a tad complicated for beginners, especially because it tends to put lots of windows on your screen at once. But boy, can Premiere do a lot, especially because it supports a large number of third-party plug-ins that add all kinds of effects to your digital video (Adobe itself markets the best-known collection of these, a \$600 package called After Effects; another favorite of the pro crowd is Alien Skin Software's \$450 Eye Candy).

Premiere is not all that cheap, especially when you start adding in the plug-ins. And if you want to do pro-quality stuff, you'd better have a mighty potent system. If you're on a low budget, you might like to take the LE version for a spin (it's bundled with Iomega's Buz and a few other video-capture options). But be warned, your patience may be tested with Premiere LE, as it leads you to think it has certain capabilities, but when you try to make them work it tells you "sorry, but that function is only available in the full version." I hate that.

Adobe, 800-833-6687, www.adobe.com

Final Cut Pro

Apple's professional-level video software, priced at \$999, is aimed at users who are looking to move up from the Premiere realm, but perhaps not all the way up to the very high-end equipment (such as



Avid's Media Composer; that package is beyond the scope of this article but suffice to say it requires

several expensive add-in cards to operate correctly. Folks on a regular budget

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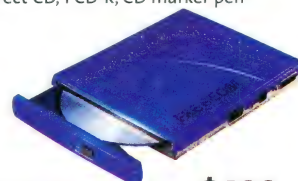
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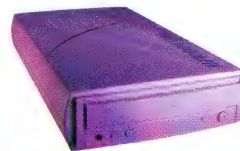


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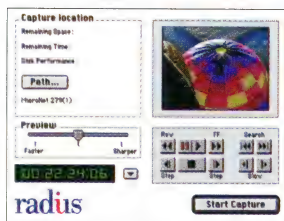
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would probably opt for something a little easier on the pocketbook).

Final Cut is a versatile program that has a lot of built-in effects and compositing (combining objects from different video files into a single one, such as you'd do in Photoshop by making it look as if someone's holding an object, when they're really not). Like Premiere, it's not really for beginners, though one's video gestalt could grow with the gradual learning of the program. If you're really cool and know about scripting (it's sort of like programming), you can even create your own effects with Final Cut. See our review in this issue on page 40.

MotoDV

This \$399 package from Digital Origin (formerly Radius) is mainly for video capture operations on PCI-based Power Macs other than the newest FireWire-equipped G3s. It has some rudimentary editing and equipment-control software,



but **MotoDV** is mostly a FireWire card aimed at early beige G3s and

PowerPC 604-based systems (those Power Macs before the G3s). It's available for about \$200 without the FireWire card. There's also EditDV Unplugged, a \$99 basic editing package that works with FireWire-equipped G3s; the full version of EditDV lists for \$899. Brand new is RotoDV, a \$399 package that lets your "paint" effects atop video files, just as you'd do with static images. *Digital Origin, 800-572-3487, www.digitalorigin.com*

QuickCam

Logitech's series (originally from Connectix) consists of an eye-ball-shaped camera and some software to capture video in either single frames, video streams, or time-lapse. The video quality isn't all that



great but the cameras are small and convenient. Some folks take these gizmos around with their PowerBooks, documenting their travels. Only USB versions of the \$149 QuickCam Pro and the \$70 QuickCam VC (that stands for videoconferencing) are listed on Logitech's site; the original serial-port models seem to have gone to that great sound studio in the sky. You may still be able to find an original Connectix color or black-and-white one cheap, however, and if you have an earlier Mac they're great fun.

Logitech, 800-231-7717, www.logitech.com

How Do I Get Video into My Computer, Again?

To get video into your Mac, your camcorder's video signal needs to go into a circuit that converts it from analog video into a stream of digital data. This is called *digitizing*, and it's accomplished by means of video-capture circuitry. Some Macs, such as the 840AV, 8100, or the video-enabled beige G3s, have built-in video-capture, and you can get FireWire video directly into a new G3 if you have a FireWire camcorder like the Canon Elura. For other Macs, you'll need a video-capture card, like one of these listed below:

For PCI Macs

ATI XClaim VR 128 (about \$220)

ATI Technologies, 905-882-2600
www.ati.com

miroMotion DC30

\$750 (includes Premiere 5.1)
Pinnacle Systems, 650-526-1600
www.pinnaclesys.com

Iomega Buz (PCI card with ancillary box, SCSI acceleration)
\$330, Iomega
800-697-8833, www.iomega.com

For USB Macs

Cinema for iMac, video-capture and editing package, \$299
Avid Technologies
800-949-2843, www.avid.com

InterView

Video-capture and editing, \$99
Interex/XLR8
888-957-8867, www.xlr8.com

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Video-capture device, \$109
Ariston Technologies
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MacHome's

7th

Annual Home Choice

awards

*So many toys;
so little time.*

Like giggly, wide-eyed children, we MacHome editors and writers are surrounded by so many of the best gadgets, games, and utilities, that we have no trouble keeping busy. We've seen it all — we've printed and scanned, we've word processed and Web-surfed, we've gamed and gambled, and now it's time to reflect on our favorite Mac products among this veritable cornucopia of offerings. So, without further ado, MacHome is proud to present the Home Choice awards of 1999.



Editors' Picks of the Best Products

Desktop System: Blue G3

Will it be a blue G3, or will it be an iMac? Despite the obvious allure of the cherubic lil' all-in-one, most of us came down on the side of Apple's blue G3. More expensive, yes, starting at \$1,499, but much more expandable — not only can you pick whichever monitor you like, but it's also a snap to open up to add RAM or PCI cards. "Was there really any other choice?" ponders John Poultney, *MacHome's* editor. "I think not, given this system's sleekness, color, and gently rounded exterior — not to mention its thoroughly impressive horsepower and easy access." But Chris McVeigh, *MacHome's* editor-at-large, casts his lot with the 333Mhz iMac. "It offers incredible speed at the same low price point as the original — a phenomenal value. And of course, it's still offered in a multitude of colors." *Apple Computer*, 800-538-9696, www.apple.com



Portable System: AlphaSmart 2000 Keyboard

Yes, we all do love those PowerBooks, and whole-heartedly recommend the G3 233Mhz "Wall Street" PowerBook, which packs a lot of power into a relatively affordable package. And Palm Organizers, which connect to your Mac but fit in your pocket, was reviews editor David Weiss's most favored portable. But this year's Home Choice award goes to IPD Inc.'s AlphaSmart 2000 note-taker/keyboard. Unlike a PowerBook G3, this device really is light, it's also cheap (about \$200), and unlike a Palm, it has actual keys. No, it's not a Mac. But it does have a screen, and works as both a standard ADB keyboard or a portable note taker. You can even print from it! Of course it's mainly for writing — if graphics are your bag it won't fill the bill. So far, AlphaSmart is just available in ADB, so for an iMac you'll need a converter cable. Until Apple comes out with something small and rugged, this is our main portable choice. *IPD Inc.*, 888-274-0680, www.alphasmart.com



Removable Storage: The Orb Drive

OK, so it's not widely available just yet. But we've seen this drive in action, and it's a definite contender for Iomega's market-hogging removables. The drive, which will be available in SCSI, USB, FireWire, and EIDE (mostly for PCs, but some Macs use this architecture) versions, costs about \$200. But would you believe \$30 for a 2.2GB cartridge? Compare that to about \$120 for a 2GB



Iomega Jaz cartridge and you're beginning to see the light. Not that Iomega's products don't

merit an honorable mention. After all, they're everywhere. *Castlewood*, 925-461-5500, www.castlewood.com

Color Printer: Epson Color Stylus 740

Epson has a habit of astounding us again and again with the awesome quality of its color printers. The \$250 Color Stylus 740 may not be the top of Epson's line, but in terms of price and performance, the 740 is pure magic. Says McVeigh, "It offers serial, parallel, and USB ports for maximum connectivity. And as a bonus, the new translucent, multi-colored 740i allows you to coordinate your printer to your iMac or Power Macintosh G3." Poultny agrees, adding, "The 740 is a sock-knocker-offer." And regarding the 740i, he's even more emphatic. "It's about time printers got on the translucent bandwagon, for goodness' sake." *Epson*, 800-463-7766, www.epson.com

Monochrome Laser: HP 2100TN

Lasers continue to be the workhorses of the home office. Sure, they're more expensive, and yes, we all love color. But when you've got to crank out reams of invoices, letters, memos, and manifestos, you'll want a PostScript-capable printer (to ensure that all of your fonts and images come out to your exact specifications). Look no further than Hewlett-Packard's \$999 2100TN. However, a hearty honorable mention goes out to GCC Technologies, for its \$999 12/600.

"It's a great quality laser printer at a steal of a price," says contributing writer Jeff Battersby.

Hewlett-Packard, 800-527-3753, www.hp.com



Scanner: Astra 2000U / Astra 1220S

We've seen many stupendous scanners cropping up over the last year. Soon scanners will be almost as ubiquitous as cell phones — well, not quite. This was a tough decision: Agfa, Epson, Microtek, and Umax have all been cranking out stellar scanners for the home. A small company called Artec even entered the ring with a high-quality translucent wonder, the 1236 USB, for under \$150. But for all-around performance, price, and ease of use, *MacHome* gives the Home Choice award in this category to the \$129 Astra 2000U from Umax. For those who use SCSI rather than USB — you know who you are — the award goes to the \$149 1220S. Says news editor Jackie Dove, "It's a great, all-around consumer/business color flatbed scanner that is well suited to image editing or Web development." *Umax*, 800-562-0311, www.umax.com

Digital Camera: Olympus 340R

This was another toughie, what with impressive offerings from manufacturers such as Agfa, Epson, Canon, Sony, and Olympus. But the editors rallied for Olympus. McVeigh prefers the D-400Zoom (\$599). "A smart camera with a gamut of options. Although the Olympus D-400 doesn't have the highest pixel count, it's got a great zoom, and it takes great photos for the price." But

for \$399, the 340R, though it doesn't come with a zoom, cranks out some quite impressive pictures indeed. Therefore, it takes the cake. *Olympus*, 800-347-4027, www.olympus.com

Alt.Word_Processor: WordPerfect

Yes, it's true that most of us use Microsoft Word. But is that because we want to or because *everyone else uses it*? AppleWorks is certainly a viable alternative. Says Battersby, "It's mighty powerful and it runs on just about anything." But this year's Alternative Word Processor award goes to Corel's WordPerfect (\$300). "WordPerfect is completely flexible and intuitive to operate," says Dove, "and it doesn't have an overwhelming interface. Want to per-

Monitor:

Apple 17" Studio Display

Your monitor is the window to your Mac, so it ought to be clear as crystal. Apple's Studio Display is our monitor of choice, and the \$499 17-inch model is a prime value. Says McVeigh, "The Diamontron tube in the Apple Studio Display delivers crisp text and graphics, even at high resolutions such as 1280 x 960. As an added bonus, the display nicely integrates with the new blue-and-white Power Macintosh G3s, and offers a cool tri-leg base that raises the display to eye level and provides a storage area for your keyboard." But despite the higher price, a few of us are opting for the flat-panel version. "Call me an old sentimentalist," says Poultny, "but the sharp, bright display still holds me in its thrall." Cathy Lu, *MacHome* contributing writer, agrees. "The Apple flat-panel monitor is the slickest, slimmest, prettiest monitor I've ever seen — and that's enough to get my vote." "It was enough to get my money," says stalwart copyeditor Roberta McNair, who bought one for use at home. Apple, 800-538-9696



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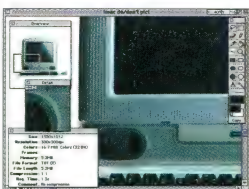
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be the wiser." Corel, 800-772-6735, www.corel.com

Shareware: Graphic Converter

There's nothing more aggravating than a graphics file with a blank icon that your Mac has got no idea what to do with, and there's nothing more useful than Thorsten Lemke's Graphic Converter, which converts graphics from just about any format to pretty much any other



format. Because it can also do basic image-editing, it's sometimes called the "Poor Man's Photoshop." You can even use it to read electronic faxes sent to you by e-mail. www.lemkesoft.de

Personal Finance: Quicken '98

Intuit's Quicken (\$59) continues to be our personal finance tool of choice. "Is there anything but Quicken?" asks Battersby, "I didn't think so." An honorable mention also goes out for MacInTax, which made our lives a bit easier this past tax season. Intuit, 800-446-8848, www.intuit.com

Image Editor: Photoshop

Sure, there are alternatives — Corel's Photopaint, Deneba's Canvas, and even Adobe's own PhotoDeluxe, although it operates on a much smaller scale. But Photoshop (\$628) remains MacHome's most favored image editor, for many good reasons. "It can do everything you need to improve a photograph or painting," says Dove. McVeigh quips, "A graphic illustrator without Photoshop is an artist without paint." And Poultney warns, "Ignore it if you wish, but sooner or later you'll have to deal with the big P." Adobe Systems, 800-833-6687, www.adobe.com

Web-Page Creator: BBEdit

The ranks fell to squabbling on this one, with many of us casting our votes for Adobe's GoLive. "Doesn't matter who owns it," says Battersby, "GoLive is the best in the business." But, call us old-fashioned; MacHome bestows the Home

Choice award in this category to Bare Bones Software's humble but powerful BBEdit 5 (\$90). "Sometimes simple is what you need," explains Poultney, "and BBEdit has simplicity and elegance in abundance." Dove, who, in addition to being MacHome's news editor also teaches HTML, elaborates. "It's a spectacular text editor, and it's got pretty much all you will ever need to construct great Websites with high-quality coding. BBEdit has superior text-editing capabilities, powerful search and replace functions, codes at your command, and it even color codes the whole thing. But that's not all. This text editor also spell checks your work and zaps gremlins." Bare Bones Software, 781-687-0700, www.barebones.com

Web Browser: iCab

You know all too well the major players in the Browser Wars, and sure, we use one or the other of the Big Two on a daily basis. But let's take a 15-minute coffee break from that corporate competition and honor the best, freshest alternative browser for the Mac, iCab. Says Dove, "It's light, it travels easily — it's only 2.2MB on my hard drive. I especially like the little smiley face that tells you about the relative purity of the HTML on the page. Most of the time, the little smiley is in a rather bad mood, as most HTML is not up to his exacting standards. But he's sporting enough to display the pages darned well, anyway. It will also accept your bookmarks from other browsers, so you don't have to reconfigure them." Hint: Get the English version. Lemkesoft, www.icab.de



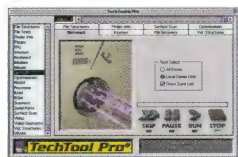
E-Mail Application: Outlook Express

Features, features, features. E-mail applications are mostly free, and Outlook Express is no exception. But what makes this lil' baby stand out are the features — outstanding address book, Web-friendly messaging, and, if you happen to be using MS Word, you'll get interactive spell-checking. "Sure, you swear

never to touch another Microsoft product," Says Battersby, "then they go and make the best e-mail application available anywhere." *Microsoft*, 800-426-9400, www.microsoft.com

Utility: TechTool Pro 2

Norton Utilities has traditionally held the stage as the *MacHome* Utility of Choice. And though we still applaud the product like nobody's business, now it's being upstaged on our desktops by a brash new contender, MicroMat's Tech Tool Pro (\$100), which not only checks your disk, but your RAM and everything else you can



think of as well. *Micromat*, 800-829-6227, www.micromat.com

Children's Learning: Reading Blaster

There are lots of titles out there to help the tykes to learn. "You can never go wrong with any of the Living Books series," suggests Battersby, father of four. And Humongous has a couple of very nice programs for kids, such as Blue's 123 Time Activities, which, according to writer John Lee, also a father, "provides an enjoyable approach to the world of numbers." But this year's Home Choice award goes to Knowledge Adventure's *Reading Blaster: Vocabulary* (\$30). Lu explains. "Think it's impossible to make a vocabulary program fun? Think again. *Reading Blaster* takes the art of words and turns it into a game that actually encourages kids to think and type words out on the keyboard rather than just pointing and clicking at colorful pictures." *Knowledge Adventure*, 800-542-4240, www.knowledgeadventure.com

Children's Game: SimSafari

Recommending a kid's game is tough, and what we were looking for was a game that walks the elusive line between fun and fulfillment. To us, Maxis' *SimSafari*, wherein the object is to build an animal park that won't fall prey to poachers or natural disasters, is that game. Lu calls *SimSafari* "intelligent, educational, stimulating, nonviolent,

and entertaining while managing to not wander into the overly cutesy realm." *Maxis*, 800-285-4525, www.maxis.com

Simulation Game: Falcon 4

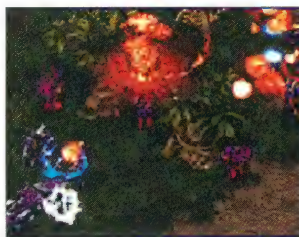
Though *FA-18 Hornet* is still a tip-top sim, it's finally been usurped; *Falcon 4.0* is a flight sim enthusiasts dream. The flight manual alone weighs more than most computer manuals, yet the game is still accessible to novices. Mix in some downright gorgeous graphics, incredible multiplayer action, and hundreds of customizable features, and you've got yourself one heck of a flight experience. *Macsoft*, 800-229-2714, www.macsoft.com

Puzzle Game: Puzz3D

We looked for the game with the biggest Wow factor, and found that Wrebbit's *Puzz3D* Collection more than filled the bill. Says associate editor Alex Handy, "Wrebbit took the fantastically innovative *Puzz3D* brand name, and managed to digitize their puzzles. As if that weren't enough, once each puzzle is completed, you can go inside the building you've assembled and have a look around." But there were a few dissenters. "Forget the talk about 3D," says Lu, "there will never ever be a better puzzle game than your basic black-and-white, 2D Tetris." *Wrebbit*, www.wrebbit.com

Strategy Game: Starcraft

Some of us came out in favor of *Myth II: Soulblighter*, but *MacHome* asks you: What's cooler than *Starcraft*? Nothing,



according to Handy: "From the intrigue of the single player storyline, to the utter joy of crushing someone in multiplayer, it's truly brilliant." *Blizzard*, 800-953-7669, www.blizzard.com

Best Product: InterView

When it comes to doing cool things with your Mac, you can't get much cooler than digital video editing. While Apple's *Final Cut Pro* and Adobe's *Premiere* are darned nifty, they're not exactly in the price range of your average iMac owner. Enter Interex, makers of the popular XLR8 G3 upgrade cards. Their



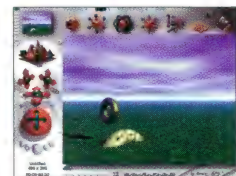
InterView package comes with an video-to-USB converter and a copy of Strata's amazing *Videoshop*. Put them together for only \$99, and you've got a bona fide winner. Not only that, but you can capture video right from any digital still camera. Associate Editor Alex Handy says, "Videoshop is one of the coolest video editors out there, and when you combine that with the silky smooth images captured from your VCR, camcorder, or digital camera, you're a regular Stanley Kubrick." *Interex*, 888-957-8867, www.xlr8.com

Role-Playing Game: Realmz

In the role-playing arena, *Realmz* has been a stand-by of old, and this shareware classic once again proves its mettle by taking the Home Choice crown. "It's one of the few games out there," says Handy, "that allows you to build your party from the ground up, including stats, icons, pictures, races, classes, and many other customizable features." With its update to version 6.15, *Realmz* (\$25) has solidified its place in the future of role playing. *Fantasoft*, 608-222-8468, www.fantasoft.com

Cool Tool: Bryce 4

In Douglas Adams's *Hitchhiker's Guide to the Galaxy*, there's a character who makes his living by creating worlds. A growth industry, perhaps, in the 31st century, but for now we must settle for vicarious world-crafting using tools such as Metacreation's Bryce 4, *MacHome*'s enthusiastically selected Cool Tool of choice. For only \$199, Bryce 4 gives the absolute neophyte the ability to throw together 3D sculptures and landscapes with endless variety and incredible precision. *Metacreation*, 800-472-9025, www.metacreation.com



It's Nice to Share

Easy (Really Easy) Networking

If there's more than one computer in your home, and even if one of them is a — gulp — PC, there's no reason why they can't all seamlessly share resources, such as files, printers, modems, and even an Internet connection, without your having to plug and unplug a thousand and one odd cables, adapters, and disk drives.

Networking cuts down costs, saves you needless aggravation, and gives you some fun stuff to brag about at your next cocktail party. Some networks require careful planning and elaborate installation, especially if you want to connect computers on different floors. For now, let's talk about really easy networking.

Ethernet

We've talked a lot about Ethernet, a networking architecture that most, if not all Macs, are set up for right out of the box. The basic ingredients for an Ethernet network are Ethernet cards in each of the computers you want to network; special Ethernet cables; and an Ethernet hub, if you want to connect more than two computers, or if you want to add a printer to the network.

If you want to network two Macs it's as easy as pie — pick up an Ethernet crossover cable from your local computer store (\$15), run the cable between the two Macs, and they're joined. But if you want to connect up more than one, or if one of them is a PC, you're going to need a hub (\$50). And if you want to connect up computers in different rooms or on different floors, you're going to have to install special jacks, similar to

phone jacks, in order to accommodate the Ethernet cables running behind the walls. You can, of course, run Ethernet cables externally, but Ethernet cables can lose performance if crimped or stepped upon and wires running up and down the stairs won't impress Martha Stewart if she comes by for a visit. (And you never know when that might happen.)

Also, things can really go downhill from there if you add or take away computers, and — mercy — if you have a PowerBook and you'd like to be able to surf the Web or get your e-mail from every room in your house.

Introducing HomeLINE

Now, for home networking, there's an alternative to Ethernet, and it's designed to make networking as easy as opening the fridge. It's called HomeLINE, and it

comes from the fine folks at Farallon, who have been working hard on easy Mac-networking solutions for years. HomeLINE works over existing phone lines, so wherever you have a phone jack installed, plug in a computer and you're on the network. If you want to add access to any room in the house, just call the telephone company and tell

them you want a phone jack in that room. You don't have to tell them anything about file sharing, networking protocols, or how convenient it would be if Johnny and Janey could duke it out in network Quake while Dad logged into the Public Library's Website and Mom simultaneously checked basketball scores on *ESPN.com*.

You can keep all of that to yourself. But although phones and data can coexist over the same wires, the PhoneLINE network still doesn't solve the age-old problem with dial-up connections — that is, you still can't talk on the telephone and surf the Web at the same time.

For a computer to join a HomeLINE network, it needs a free PCI (Peripheral Component Interconnect) slot. That means, of course, that the computer needs to have a PCI slot to begin with.



The new G3s have them, but iMacs don't. So as of press time, iMacs can't join in on a HomeLINE network. But Farallon is working on a solution for Apple's spiffy lil' wunderkind and will probably have one available by the time you read this. Farallon will also provide a solution for PowerBooks, which are too slim (thankfully) to accommodate PCI cards. As far as older Macs go, the 7200s and later use PCI slots, but the 6100, 7100, 8100 and earlier models use a different design called NuBus, so they can't play on the HomeLINE team either. Many PCs have PCI slots, and since HomeLINE's documentation and software are developed for both platforms, if you have a PC with an available PCI slot on hand, there's no reason why it would have to sit it out.

Installing HomeLINE

The HomeLINE Starter Kit (\$139) comes with two PCI cards, two phone cords, and the software on CD. The HomeLINE Single Pack (\$79) is the same package, but with only one PCI card. Unfortunately, there are no four- or five-pack deals; you'd have to buy two Starter Kits and a Single. You can, theoretically, add up to 25 computers to your HomeLINE network, but representatives at Farallon said that, realistically, you wouldn't want to have more than eight.

Installing a PCI card is relatively easy, depending on what kind of computer you have. Just to be on the safe side, it's a good idea to make use of an anti-static strap, which you can get from your local computer store. You wrap these around one wrist and attach them to a grounded piece of metal, and this prevents static electricity from zapping any of the components inside your computer. Installing a PCI card on a blue G3 is a cinch, but the blues are revolutionary in this respect; to get inside you just pop open the door, and there are the slots. Be sure to handle the card by the edges only and never touch the metallic connectors that go into the PCI slot: The oil from your fingertips could cause malfunctions. Push the card in all the way, until you hear a reassuring snap telling you that it's in.

On other towers, especially clones, such as the Umax SuperMacs, finding your

PCI slots can be a bit more involved. You'll need to move your box to a clean, well-lit area, take off the case, turn the box on its side, and perhaps even unscrew the bottom panel and remove it. Each computer is designed a little bit differently, but to find your PCI slots, look on the back of your computer for openings about three inches long, and follow them into the inside of your computer. The slots themselves are usually housed in brown plastic, and of course, they'll match the connectors on your PCI cards.

Once the PCI cards are in, and you finish reassembling your computers and plugging in all of your power cords, keyboard cables, etc., plug one end of a phone cord into the jack on each HomeLINE card that says Wall, and the other, of course, into a phone jack on the wall. If you had a phone plugged into the wall, plug that phone into the

figuration that requires any thought at all is the part that deals with Internet sharing. So before you start up the HomeLINE CD, it's a good idea to collect all of your Internet settings. You can get these from your ISP, or you can get them from your PPP and TCP/IP control panels. You'll need to know your username, password, access telephone number, IP address, and any Name Server addresses.

Vicomsoft's SurfDoubler, which ships with HomeLINE, is the software that controls Internet sharing, and when you start up your gateway computer, you're greeted with a SurfDoubler setup assistant that walks you through the process. A cartoon wizard will ask you all of the necessary questions and configure all of your settings. When you finish with this, you're done with the gateway computer, and the same wizard will help you set up your additional computers.

**Networking cuts down costs,
saves you needless aggravation,
and gives you fun stuff to brag
about at your next cocktail party.**

jack on the HomeLINE card that says "Phone/ Modem."

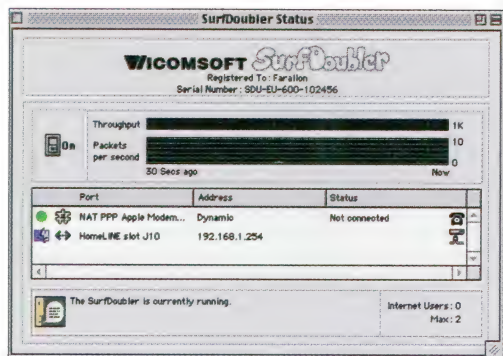
Next, you'll need to decide which computer will act as the "gateway" to the Internet — that is, which computer will be directly connected to the modem. So you'll want your most RAM-endowed Mac with the fastest modem to act as your gateway computer.

If you don't have an Internet connection yet, you'll need first to set one up by calling an Internet Service Provider (ISP) before you set up your HomeLINE network. Note that Internet sharing won't work with such services as America Online and Prodigy. That's because these types of services, although they provide a fair amount of hand holding, are very limited, and intentionally so: They don't want anyone accessing their services with software other than their own.

Next, you install the software, and for this process, the only aspect of the con-

Sharing Files

File sharing is the same, regardless of what kind of network you have, and it follows the same process. First set your AppleTalk control panel to HomeLINE. It will be labeled something like "HomeLINE slot B1," and although it seems to be a bit of vague techno-babble, what it's trying to tell you is which PCI slot the card is in. Next, go to the File Sharing control panel and turn on File Sharing. Then, whenever you want to access files on any machine on the network, open up the Chooser, click on AppleShare, select any computer on the list, click OK, and type in any passwords required. An icon of the computer will appear on your desktop, and you can use it just as you would your own hard disk. Transferring files using a HomeLINE network won't be as fast as Ethernet: Ethernet transmits at 10 megabits per second and Fast Ethernet at



SurfDoubler allows two people to share a single connection to an Internet Service Provider.

100 megabits per second. In contrast, HomeLINE transmits at 1 megabit per second. But it's fast enough to copy small files, say, 25MB or less, in a relatively short time; for bulkier file transfers, copying onto a Zip disk or other removable media would be much better. Using HomeLINE, I got an average data-transfer speed of about 6MB per minute.

If you have a PC in the mix, you'll need to make an additional purchase: Miramar's PC MacLAN. There are other alternatives that provide PC/Mac file sharing, but Farallon has an agreement with Miramar, allowing HomeLINE customers to purchase PC MacLAN for half off, or \$100.

Sharing Printers

If one of your main reasons for trying out HomeLINE networking is to share a printer, be sure to call Farallon to make sure your printer is supported before you take the plunge. Many printers can be shared, but not all of them, and it's best to be on the safe side. If you have an Apple serial printer, such as those in the StyleWriter series, you can share it using the PrinterShare extension. Many LocalTalk printers, such as LaserWriters, can work using the Apple LaserWriter Bridge control panel, while others can be used with Apple's LocalTalk Bridge control panel. PrinterShare ships with most Macs, but you'll need to download the bridge control panels from Apple's Website. PC Printers can be shared using PC MacLAN, the same product used for file sharing.

For our test network of two Macs, I used Apple's LaserWriter Bridge utility (not supported under OS 8.5 or later)

with a LaserWriter 4/600. The process is easy and immediate: Restart the Mac with the control panel installed, restart the other Mac, and you can see the printer in the Chooser of the other Mac. There was no difference in speed, regardless of which computer I used, even when issuing the print commands on the two Macs at the same time. Unfortunately, you don't see both print jobs in the Print Monitor, as you would if the printer were connected to a

hub in an Ethernet network. Instead, the printer just processes all of the individual jobs from all of the printers on the network, as if each computer were alone with the printer, and processes each job one after the other.

Sharing the Internet

SurfDoubler, the software that comes with HomeLINE, is quite easy to set up, what with its ever-helpful wizards. And if all you want to do is share the same Internet connection with two Macs, the easiest and cheapest way to do this is by running an Ethernet crossover cable between the two Macs and purchasing SurfDoubler on its own for around \$64. But the downside to this arrangement is that you'll need to run your crossover cable all the way from one Mac to the other, and when last I called CompUSA, all they had on hand were 10-foot cords.

If you follow the wizards' suggestions, SurfDoubler configures each of the computers on your network with its own address, and you don't have to assign any numbers, a task typically associated with network administration.

Using SurfDoubler with the HomeLINE network worked beautifully — I was able to surf two different pages simultaneously with practically no difference in performance, though the gateway computer seemed a tad faster. SurfDoubler only allows two simultaneous users, but if you have an eight-computer home network, all participants can use the software. Some of the users might get error messages if two others are transferring data, but they'll simply have to wait their turn and issue their commands a few minutes later.

And once you have SurfDoubler set up, you can also give each computer access to e-mail, but for this you'll have to call your ISP and see what its pricing options are. Most will charge you extra for additional usernames. And again, if you have more than two computers on the network, only two can send or receive e-mail at the same time — the others will have to wait their turns.


Fun 'n' Games


Of course, as long as you're setting up a network, why not blow off a little steam after a long bout of justifying expenses and other home-office tasks with a rousing session of network gaming? The 1-Megabit-per-second HomeLINE network is more than adequate for most network games, since they're designed to run via modems at a top speed of 56K.


Network Power


If you want to network your Mac, and even a PC or two, so they can share and share alike, HomeLINE might be just the ticket. It's not as fast as Ethernet, but it's fast enough for the basics. Best of all, it's easier to set up and to make changes as your needs change. **III**


rating


HomeLINE

\$139 for two-computer starter kit, \$79 for each additional computer; Farallon
800-613-4954
www.farallon.com

 **Inexpensive, easy to install, flexible, comes with SurfDoubler and other useful software, works seamlessly with PCs**

 **Slower than Ethernet, no deals for more than two computers**

SurfDoubler 6.0

\$64, Vicomsoft
800-818-4266
www.vicomsoft.com

 **Easy to set up and use, automatically sets IP addresses**

 **Some overly technical screens**

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- First and only cardbus graphics accelerator for Macintosh
- First and only RF wireless mice for Macintosh & PC
- The only ATM NIC solutions for Macintosh
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- Dual Monitor: first and only dual monitor solution for Mac
- And soon we'll release the most highly integrated single chip ATM solution the world has ever seen



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for Macintosh

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Font Fever

Suitcase 8 vs. Adobe Type Manager Deluxe 4.5

Mac aficionados are fond of saying that you can never have too many fonts. But piling too many fonts into your Fonts folder slows down both system and application startup times. Not good.

To keep your system speedy and stable, you can use a font management utility, which stores specific fonts for when you need them — those for special projects or particular programs — while keeping only the fonts you absolutely need inside your system Fonts folder.

Two upgrades of popular font management programs for the Mac are now available, specifically targeted toward newer Mac operating systems, and particularly System 8.5 and above: Extensis Suitcase 8 and Adobe Type Manager Deluxe 4.5. We tested both of these products to see which one best suited our needs and which was the friendliest to use. We found two excellent programs that took a somewhat different approach to the same job.

When you start managing your fonts, you will have to wrest control over them away from your Mac operating system. That means you must move them out of the system Fonts folder. A font utility will keep track of those fonts for you and allow you to turn them on and off at will. Font management is a simple concept, but it must be implemented with care. Be careful which fonts you move out of your System folder. Never move fonts out of the System folder that your Mac needs for menus, dialogs, and desktop icons. And do not move the

menu font that you have specified in your Appearances control panel.

Suitcase 8

Extensis has just released version 8 of Suitcase, giving it a brand new number to correspond with the Mac OS 8. It can be used with System 7.5.5 or higher on a Power Mac with 4MB of RAM, and is especially targeted to the iMac and G3 series. Suitcase 8 lets you open certain fonts or font “sets” (a collection of fonts) on system startup, with specific applications, or just temporarily.

You may want to reorganize your fonts at first by hand just to get the feel of working with them. Just move the fonts you don’t really need out of the system Fonts folder. Do not remove the following fonts: Charcoal, Chicago, Monaco, and Geneva. When you feel a certain mastery over your fonts, you can call

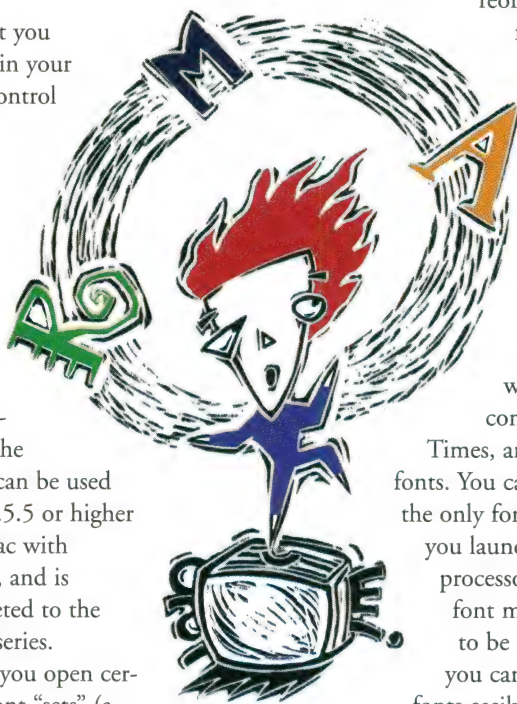
upon FontAgent, a Suitcase utility that searches for all fonts on your hard drive, removes duplicate fonts, and separates PostScript from TrueType fonts. An “old fonts” file of duplicates and/or corrupted fonts will appear inside your hard drive after FontAgent is finished reorganizing your

fonts. You can keep this file or get rid of it.

Suitcase offers six ways to turn your fonts on and off. Say you are doing routine word processing in a document where you usually combine New York,

Times, and Comic Sans MS fonts. You can make those three the only fonts that open when you launch your word processor. That way your font menu doesn’t have to be a mile long and you can switch between fonts easily.

Suitcase 8 comes bundled with other handy utilities such as MenuFonts and Suitcase 8 XT, for those who use Quark XPress. MenuFonts, an extremely cool utility that comes on the Suitcase CD, shows your type menus in their own typefaces and gives you six sample size variations on screen. An older version of MenuFonts does not work well with Microsoft Word, but the Website has the update patch available for download that



will make the software conform with Word.

A major glitch occurred when I first started using FontAgent. Even though I followed directions, it insisted on taking all the system fonts out of my Fonts folder. The results were not pretty. I also did not find Suitcase particularly intuitive at first, so if you buy it, be sure to read the manual before you start rearranging your fonts. That way you can make a decision on whether you want your fonts to be organized in a font library or not.

While online help is great, my Mac crashed around Microsoft Word and Internet Explorer, where the help files are located. If you're like me, and like to learn by the book, then you can print out the PDF file from the CD or download it from the Website.

Adobe Type Manager Deluxe 4.5

Adobe has updated its type management utility, Adobe Type Manager (ATM), with sophisticated features that will help you arrange your fonts in sets, activate fonts or sets of fonts, find duplicate fonts, specify which fonts are active or

agement system that does more than just make your fonts look nice on screen.

The first thing you'll want to do after you install ATM and restart your computer is to let the program search your hard disk and add fonts to its Known Fonts list. You don't have to worry about doing this, since ATM doesn't move the fonts, but rather verifies that they are properly configured and will alert you to errors. This was a swift operation on my iMac, which had some 100 or so fonts installed. You can easily program ATM to activate all fonts as they are added to the list, as opposed to activating individual fonts later, and those are the fonts that will appear in your font menus. ATM and ATR both work with double-byte fonts, such as Chinese, Japanese, or Korean fonts. Any fonts that are in your system Fonts folder are automatically activated.

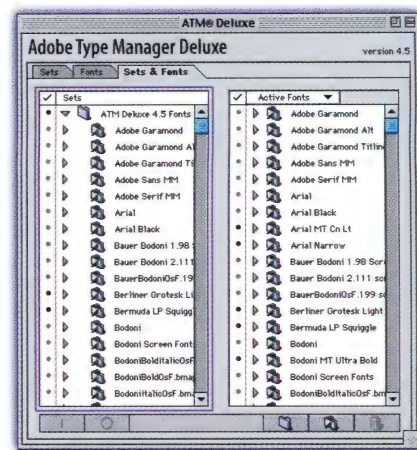
Adobe Type Reunion 2.5 shows fonts in their own typeface, but it won't give you the sample typeface sizes that Suitcase does.

ATM 4.5 Deluxe is more intuitive to use at first glance than Suitcase. The opening dialog in ATM gives you several ways to work with and view your fonts, and it will perform the search duplicate function without having to build a library or rearrange fonts outside your System folder.

The Duplicates manager also provides copious information about your fonts and lets you make independent decisions about each one. ATM also has special features, such as multiple master fonts for graphic designers.

Certain applications are not compatible with Type Reunion, so the control panel must be turned off in those cases. You can also remove ATM and Type Reunion by hitting remove on the CD installer, a feat that is not easy to do with Suitcase.

If you buy ATM, Adobe also throws in 15 free fonts as a bonus — a font junkie's



Adobe Type Manager's clean interface makes it easy to dive into font management.

paradise. An online help file is available in case you get stuck, and the program also comes with written documentation.

The Final Decision I found ATM more intuitive at the outset, with its features being a bit more integrated than Suitcase's and with a more-intuitive on screen interface that lets you start managing fonts right away. It is also quite a bit cheaper than Suitcase.

Right from the start, I felt I had more control over ATM than Suitcase; however Suitcase's various functionalities were very swift and efficient once I got the hang of them. Moreover, I liked Suitcase for its MenuFont utility and library functions. **AM**



Suitcase 8 lets you create new font sets, and add and remove font sets via this handy menu.

inactive, preview and verify your fonts and more. ATM also includes Adobe Type Reunion Deluxe 2.5, which organizes and displays fonts within your applications. Both ATM Deluxe 4.5 and ATR 2.5 require a Mac with 16MB of RAM running OS 7.5 or later.

You may be familiar with ATM in its traditional role as a control panel to improve screen-font display, and this new utility will also do that. But ATM 4.5 also provides a complete font man-

rating ★★★★★

Adobe Type Manager 5
\$70, Adobe Systems
800-833-6687
www.adobe.com
PowerPC Required

Intuitive, fast, easy to install and de-install, free fonts

None

rating ★★★★★

Suitcase 8
\$90, Extensis
503-274-2020
www.extensis.com
PowerPC Required

Super organizing capabilities, cool font menu

Unintuitive, glitchy, expensive

TView Gold

If your Mac has a small screen and you've got a colossal TV in the living room, guess what? With TView Gold from Focus

Enhancements, you can display your Mac's video signal on your TV, the better to share slide shows, Websites, and games.

TView Gold consists of a small, AC-powered box that "intervenes" between your Mac and your monitor. But although the documentation says there is a Mac adapter in the box, I couldn't find one. I had to run down to CompUSA to buy two — one to convert the video output port on my 9600 to VGA (that's the Windows video standard) and another to attach my monitor to the TView cable, so that I could have both monitors up and running simultaneously.

Controls are extensive, making this a vast improvement over LTV Micro, an earlier effort from Focus Enhancements



that we reviewed back in February of '97. Still, the controls are a bit awkward — the test pattern that appears on the screen when you call up the control for horizontal alignment, for example, doesn't match the position of your Mac desktop.

So you end up having to resort to a lot of trial and error in order to make your adjustments. The image quality, though quite

good, is still far from perfect: After tweaking the controls for a long while, I still could not get an image clear enough to read small text, such as the file names of the icon. Although this is a typical challenge for video converters of this sort, I expected TView to perform much better than its predecessors, and it was only a little better. Also, although it's advertised to be free of flickering, I found that it still flickered a bit.

It comes with Screen Squeeze, a utility that helps the video image by putting a

black frame around it, and Electronic Marker, which lets you circle and underline screen images without affecting any of your files. It also ships with a remote control, so you can adjust the screen from a proper distance — your couch.

The Final Decision TView provides a quick and easy way of displaying your Mac's video image on a TV screen, but like many lower-end video converters, it works best for very large, clear images and graphics and is not quite sharp enough for intricate details.

— David Weiss

rating



\$229, Focus Enhancements
800-699-3972
www.focusinfo.com
PowerPC Required

✔ Puts your Mac on a TV screen, comes with remote control and presentation software, supports resolutions of up to 1,024 x 768

✘ Video image is a bit blurry, screen adjustments are not "real time," a bit pricey

Canoma

Canoma is truly an amazing bit of software. It can do that which most CAD and graphics pros have only been dreaming of doing for a long time now: turn a 2D picture, such as a scan or a digital photo, into a 3D model that you can (virtually) walk through. Canoma doesn't perform this trick automatically, however. You import a picture, and then trace it using Canoma's selection of 3D tools.

Pictures of cities or rooms with furniture are a snap to trace, but unfortunately, pictures with more organic, complex shapes are a bit of a chore. One of the big reasons for this is that although Canoma has numerous variations on



boxes and pyramids from which to model onto and into your picture, there is no cone or cylinder tool. In fact, there are no sphere-like shapes at all, such as the ones that are abundant in MetaCreations' Bryce. This would be excusable were there not an arch shape

included in Canoma, proving that the program is capable of handling smooth rounded surfaces. According to MetaCreations, conical and cylindrical shapes are on the drawing board for the next version of Canoma. Until then,

there is an unsupported Easter egg that allows you to use a curved model: Select the Stairs tool and type "99stairs." Keep in mind, however, this is an unsupported feature; use it at your own risk!

Another problem with Canoma is its weak animation tools. They seem to have been added only for integration

with other products. You can set keyframes for reference in higher end 3D-animation programs. But for Canoma's price tag, it should include some sort of rudimentary animation tool rather than relying mostly on those from 3rd party programs.

The Final Decision MetaCreations has always done new and interesting stuff — Bryce 4.0 for example. Canoma may soon become an indispensable tool for the 3D modeler. Right now, however, it's still more of a developmental release than anything else. It's not quite where it needs to be yet. Unless you really can't wait to model that picture of your house in 3D, wait until version 2.0.

— Alex Handy

rating



\$499, MetaCreations
805-566-6200
www.metacreations.com
PowerPC Required

✔ Great for modeling buildings and furniture

✘ No conical models, limited animation tools, expensive

Cruise Control 1.0.1

With all its computing power, just imagine all the manual labor you employ to run your Mac. You start it up in the morning, launch an application, quit the program when you're done, copy files, delete files you no longer want, check your e-mail, access your favorite Websites, transfer files, print your documents, optimize your hard drive, shut down your Mac at the end of the day, and so on. The list never ends. But Cruise Control, a new product from Walnut Systems, lets you automate all such tasks, using a simple calendar metaphor.

The program is simple — you install it with a single click, and after clicking a few more buttons and tabs, you're ready to roll. You start by dragging a file or

program to one or more of the days on the calendar screen, and then you designate what you want to do and when. From there, the Cruise Control "agent" will take over, activating the function you specify at the time you select.



function by voice, using Apple's speech-recognition feature. About the only major feature missing is the ability to use keyboard shortcuts to invoke a Cruise Control agent, which you can do when using WestCode Software's OneClick or CE Software's QuicKeys.

The manual is usable, but it doesn't have enough good examples for novice users. Also, it comes on a floppy disk,

Cruise Control can perform the action you want at a specific time or after a specified period of time that a file or program has gone unused. A newly released plug-in also lets you activate a

which may present problems to users of the blue-and-white G3 and iMac. Fortunately, you can download a copy from the publisher's Website — if you have Internet access of course.

The Final Decision Cruise Control is an attractive idea. And if you can get past the mediocre manual, you'll find it works just fine. Give the 30-day demo a try (it's available from the publisher's Website) and see if it can help you to cruise more smoothly.

— Gene Steinberg

rating



\$99, Walnut Systems, Inc.
800-945-8024
www.walnutsys.com
[PowerPC not required]

Easy setup; fast, unobtrusive performance; supports AppleScript; plug-in architecture allows for easy updates

Thin manual, limited to time- and voice-based actions

Acrobat 4

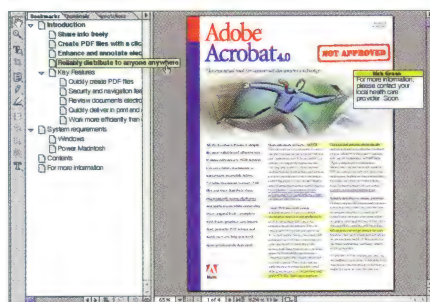
A few features in Acrobat 4.0, including Web capture and digital signatures, were developed first for Windows. We are currently porting these to the Macintosh."

So says Adobe Systems, maker of the portable document format (PDF) software application, Acrobat. That's an about-face from the company's stance a few months ago, when it said those features (and a couple of others) were more appropriate for the Windows version and made no mention that they would ever see the light of day on the Mac.

The basic concept of Acrobat is noble: You can create a PDF file that can be read on any of 13 computer platforms with a free Acrobat Reader utility, and the file will look the same on each, even

if the recipient doesn't have the fonts, images, or illustrations, or even the same application. PDFs are very small, and you can easily build in hyperlinks, movies, JavaScript-like rollovers, sticky notes, and bookmarks. Acrobat 4 isn't

much different from Acrobat 3. It still includes PDF Writer, which you use just as you would a printer to create PDFs from simple documents, such as text documents or spreadsheets, and Distiller, for more complex documents, such as



those from page layout applications. It's a pain to have to choose between the two; why not make one tool? When creating a PDF out of a multi-layered QuarkXPress document, PDF Writer screwed up which layers went where. In another large document, images didn't export fully. Distiller makes you create an EPS file of such documents first, then convert the EPS file to PDF. It works

fine that way, but it takes much longer.

New features aren't a big deal: The new interface is pretty and functional, but it's no reason to buy an upgrade. PostScript 3 is better than PostScript 2, but not by an appreciable difference. New annotation abilities (the sticky notes) work just like the paper and glue ones — but do you want to pay \$249 for sticky notes?

The Final Decision PDF files were one of Adobe's best ideas. However, its decision to give the Mac version of Acrobat 4 a minor re-bake while the Windows version got the frosting is totally contrary to its mission. Even when the Mac version catches up, Acrobat 4 won't be worth the upgrade price.

— Alan Stafford

rating



\$249, \$99 upgrade, Adobe Systems
800-833-6687
www.adobe.com
PowerPC Required

Still works great

So does Acrobat 3

All Fired Up!

Two FireWire Drives Compared By David Weiss

FireWire, the new port that comes standard with the blue G3s, is packed with promise. Like USB, it's hot-swappable, but it's capable of transferring data at much, much higher speeds. Many digital movie cameras come equipped with FireWire, making it easy to transmit the large files that digital video produces.

Now let's take a look at the first FireWire removable hard drives that are out of the gate — the VST FireWire Drive and MacTell's FireDrive Hard Disk Drive.

Basics

The VST FireWire Drive is small enough to pop into a shirt pocket. It's also bright orange and red, making it look a bit like a cross between a piece of candy and an intergalactic incendiary device. It doesn't ship with a power cord, but it doesn't need one, for it draws all of its power through the FireWire bus. You could add an AC adapter, which you'll need to hook up more than six drives.

The VST FireWire drive comes in a staggering variety of configurations — "slim" ones that range from 2 gigabytes (\$300) up to 14GB (\$1,000), and "full-height" units capable of holding 10GB (\$500) up to 36GB (unlisted as of press time; the 22MB full-height drive is (\$800).

MacTell's FireDrive comes in one physical size that, in contrast to the



VST's slim drive, is about as big as a hard-cover dictionary, and about as bulky. MacTell's drive comes in 3 configurations — 8.4GB (\$500), 10.1GB (\$700), and 14.4GB (\$900). So the MacTell drives are less expensive than VST's "slim" varieties, but more

expensive than VST's full-height contenders.

In contrast to the VST drive, the MacTell drive does come with a power cord, and it would not function without it (I tried). It also sports a feature that the VST drive doesn't — a power button. And it's hidden behind a sliding door, presumably so that kids and other impulsive types won't spontaneously push the button and zap your beloved data.

We tried out a 2MB slim VST Drive and a 14.4MB MacTell FireDrive.



Speeds

Theoretically, FireWire is capable of supporting speeds of up to 6MB per second, but in our real world tests of copying files, we didn't come close to that. The VST trans-

ferred data at an average speed of 2MB per second, but the MacTell's average speed was only 1MB per second. Note that these tests were performed using Apple's FireWire 2.0 driver, and that after the release of 2.1, both manufacturers will update their drivers, and that should result in a drastic increase in performance.

Software and extras

The VST comes with VST Format, a utility for formatting your drive as well as partitioning it into up to eight different volumes. The MacTell drive, unfortunately, comes with no software for performing such tasks, and although the manual says it's possible to format the drive using the regular ol' Erase command from the Special Menu, when I tried to do just that I got an error.

The Final Decision Although the slim VST drives are more expensive, I'd spring for one of those. Its performance was better than the MacTell drive in my real-world tests, it's much smaller and sleeker, requires no external power, and comes with software for formatting and partitioning the drive. **VIII**

rating	★★★★
VST FireWire Drive	
\$300 (2GB), \$700 (8GB); VST Technologies	
978-263-9700	
www.vsttech.com	
FireWire Required	
👍	Slim, portable design; spiffy performance, comes with formatting utility
👎	Produces weird errors if unplugged while drive is mounted

rating	★★★½
FireDrive Hard Disk Drive	
\$500 (8.4GB), MacTell Corporation	
888-622-8355	
www.mactell.com	
FireWire Required	
👍	Less expensive than the VST drive
👎	Slow, bulky, requires external power

InterView

With all the hubbub over Final Cut Pro (see page 38) we've been hearing a lot of talk about home users editing their own movies. It's being hailed as the next media revolution, just like desktop publishing. Yet while all this attention is being paid to home use of video capture and editing, who can afford all that hardware and software. Final Cut Pro costs a hair under \$1,000. Add to that the cost of a FireWire capable camcorder and a brand new G3, and you've got quite a price tag. Enter Interex.

For 99 bucks you too can enter the digital video age. All you need is a VCR, **a TV, and your iMac**. The InterView package comes with everything else. It includes an s-video/AV to USB cable, a stereo adapter for your sound input, and best of all, it's bundled with Strata VideoShop 4.5!

It's hard to believe how much oomph you can get out of InterView. The cable

is simple to install, and since it's USB, you can unplug it anytime you wish. It allows you to connect your TV, camcorder, digital camera, or even your VCR into your iMac's second USB slot. It does require power, however, so you can't plug it into the keyboard.

After you install the cables, it's time to crank up VideoShop. It's not a stripped down version of the software; VideoShop has everything you'd ever need to make your movies look professional. Included with VideoShop is an awesome music tool called TuneBuilder. It allows you to take a pre-made song and chop it up to fit your movie. It's mind-bogglingly simple, too. Plus, you can export your movies as self playing applications or as Quicktime movies!

The Final Decision InterView is an astonishing product — for \$99, you get a professional strength video editing software package and everything you'll



need to transport video onto your Mac. This is exactly the kind of product the iMac was meant for; powerful yet easy to use. The

InterView is hands down the best video editing package for a home user.

— Alex Handy

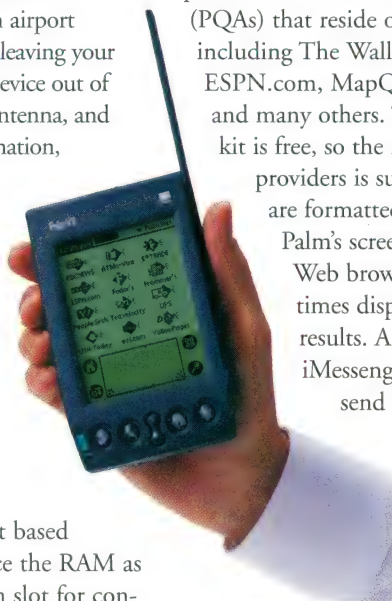
rating ★★★★★	
\$99, Interex 888-957-8867 www.xlr8.com USB Required	
 Comes with Strata Video Shop, inexpensive	
 Can only capture video at 320 x 240 resolution	

Palm VII Connected Organizer

It's the road warrior's ultimate dream: You're sitting in an airport waiting area, and without leaving your seat, you pull a wallet-sized device out of your breast pocket, raise its antenna, and call up the latest flight information, cruise the daily news, and dash a quick note off to a loved one. Enter the Palm VII, 3Com's wireless organizer.

Miraculously, it's just a tad larger than the venerable Palm III, upon which it's based, and that's due to the extra battery that powers the radio transmitter. But it's too bad that it's not based on the IIIx, which has twice the RAM as the III well as an expansion slot for connecting to cell phones and other hardware. The Palm VII does, however, sport the IIIx's improved screen.

The Palm VII's transmitter doesn't work like a wireless modem, which lets



you dial into an ISP to collect e-mail and surf the Web. Instead, it connects you to a set of Palm VII content providers, via Palm Query Applications (PQAs) that reside on your Palm, including The Wall Street Journal, ESPN.com, MapQuest, Moviefone, and many others. The PQA developer kit is free, so the number of

providers is sure to grow. PQAs are formatted specifically for the Palm's screen, unlike Palm Web browsers, which sometimes display awkward results. A PQA called iMessenger allows you to

send and receive e-mail, but you'll need a new e-mail address for your Palm VII — you can't check your existing e-mail




address with the Palm VII.

Having a separate e-mail address could be a blessing, however, since wireless services require monthly fees for

usage. The Palm VII costs \$10 a month to download 50KB, and if you exceed the limit, it costs 30 cents a kilobyte. After one week of heavy usage, downloading news from ABC and checking out every available PQA, I had used up 25 kilobytes, so the service is not cheap.

The Final Decision The Palm VII is a nifty device, and it packs a lot of wireless power into a small, accessible package. But for the price, it has limited RAM and expandability, and even though PQAs are well formatted and easy to read, many might prefer a Palm III with a wireless modem.

— David Weiss

rating ★★★	
\$599, plus \$15 MacPac; 3Com 888-756-7256 www.palm.net	
 Wireless access to information, not much larger than a regular Palm	
 Needs a dedicated e-mail address, can't use it to surf the Web as we know it, less RAM, less expandable than the IIIx	

Making the Cut

A Look at Final Cut Pro **By** Alex Handy

Steve Jobs, Apple's iCEO, believes that the next revolution will be televised. Much in the same way that Adobe Photoshop and QuarkXPress revolutionized the publishing industry, Apple hopes that Final Cut Pro will bring video editing into the realm of the average user.

Their video strategy hinges on Quicktime 4 and Final Cut Pro, and now that we're able to play with both of these products, it's safe to say that the revolution is here.

Why Grandma, What a Big Interface You Have

The first thing you'll notice about Final Cut Pro is its polished aluminum look. The interface is not your standard Apple Platinum that comes with OS 8, it's the new Quicktime 4 look that will be the

editing systems out there, and Premiere has won numerous awards.

Drag-and-drop is implemented beautifully — When inserting a clip into an existing movie, menus pop open as you place the clip where you want to insert it. This allows you to cut from shot to shot with ease. Integrating audio from one clip into another is also a simple drag and drop process. But the easiest way to make your movies look professional is by using transitions.

An added bonus is the ability to stream digital video through FireWire, negating the need for a capture card and extra video equipment.

Adjusting to the Transition

When moving from one shot to the next, a smooth dissolve or a good wipe can make all the difference. In Premiere or Videoshop, there are a number of included transitions, much

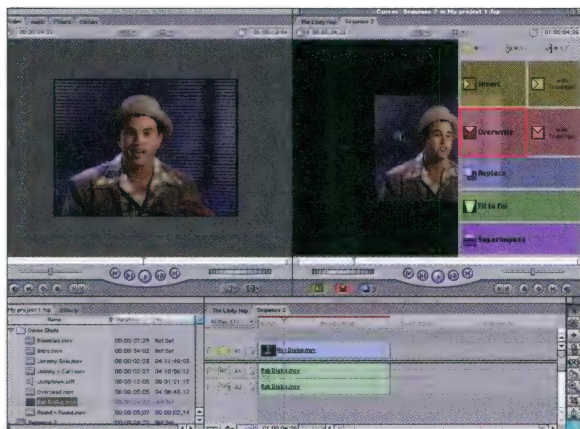
the same way there are filters included with Photoshop. But Final Cut Pro's included transitions are a cut above the rest. They are easily applied and visually stunning. Movies shatter and fly apart, turn into cubes and rotate to reveal the next shot, and even ripple away like water. Add to that the ability to make your own transitions and effects with the included effects editor, and

you've got a winning combination on your hands.

The only product that can come close to Final Cut's visual effects is Adobe's Premiere companion, After Effects. However, After Effects is a separate program costing almost as much as Premiere itself. Videoshop's included transitions are nice, but don't hold a candle to either of it's bigger, feistier rivals.

Unlike Premiere, Final Cut Pro is meant for people who don't have a degree in film editing. The manual reads like a tutorial, walking you through everything you'll need to know in carefully laid out steps.

The Final Decision With a price tag like that of a brand new waterbed, Final Cut Pro isn't meant for your average user. But Final Cut Pro can do most everything that a \$10,000 video editing station can do at a fraction of the cost. With this product, a blue G3, and a digital video camera, you'll be able to output video on par with most television programs, for only about \$5,000. It will work with a 333-MHz iMac but this is "not supported" by Apple, and you won't be able to directly import and export video with that setup (you'll be limited to working with existing video files). In the same time it takes you to make one movie with a huge workstation, you can do dozens in Final Cut. **||||**



standard in OS X. Everything you'll need is easily accessible from the main windows, and drag-and-drop is the basis of all image manipulation. When compared Videoshop from Strata and Premiere from Adobe, Final Cut Pro blows them both away in the look-and-feel category. This is no easy feat; Videoshop has one of the simplest video

rating

Final Cut Pro
 \$999, Apple Computer
 800-767-2775
www.apple.com
 Power PC Required

Brilliant interface, awesome transitions, excellent manual, requires no capture card for FireWire

Expensive

DESCENT 3



Macintosh
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FOR MAC



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Cookies — Who's Following You?

Internet Marketers Can Track Your Online Moves

There you are, sitting at your computer at 12:30 a.m. browsing the Web. But you are not alone. Chances are, there are Websites collecting information about you — keeping track of where you go, what products you buy, your name, possibly your e-mail address, and maybe more. This is done via a technology called cookies.

While cookies are not inherently sinister, understanding the concept behind cookies and how they are used can help you to protect your privacy online. “There are different ways that cookies can be used,” says Russ Bodoff, senior vice president of BBBOnLine, the Better Business Bureau Website that promulgates reliability and privacy policies for Websites. “Cookies are benign in themselves and can be used to make sites more friendly ... but it’s important that companies inform people that they are using cookies within their privacy policies. They should have an explanation of what they’re using them for. They’re not evil,” Bodoff says.

Not All Sweetness

Say you go to a Website that asks you to “sign in” or “register” before you can view its contents. Or, say you want to personalize information from such Website portals as My Yahoo or Excite. And say that Website asks you questions about yourself, such as your name and e-mail address (and possibly other information, such as mailing address and phone number). That Website is going to send you a cookie.

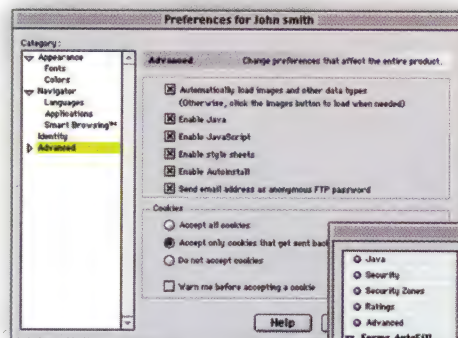
So what is this thing? A cookie is simply a small file of information that is sent to your browser along with an HTML page that you have requested. Cookies are used by Web servers to identify you for

computer operating system (Macintosh, of course) and browser version.

However, direct marketing companies can use cookies for Website tracking and targeted marketing — thus keeping track of your browsing patterns without your knowledge or consent. That use of cookies sets many Web surfers and privacy advocates on edge.

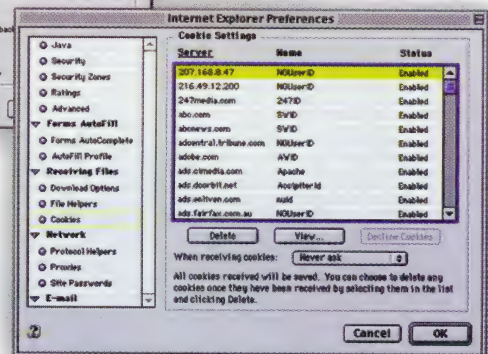
When a cookie is sent to you, your browser saves the information to your hard drive. Why? So when you return to the Website that sent you the cookie, some of that stored information will be sent back to the Web server along with

your new request. That file resides on your hard drive in a file called MagicCookie. When you return to the site that sent you the cookie, it automatically “remembers” the previous information you sent to it, because



▲ **Netscape Navigator** shows you a list of the cookies in your cookie file, and lets you remove any server you wish.

► **Internet Explorer** lets you set your preferences to accept cookies only from the site that you are currently visiting.



various purposes, such as setting up a personal page, keeping track of your shopping cart, recording your password, saving your preferences, and detecting your com-

some of that stored information is sent back to that server.

Go ahead and do a search with Find File or Sherlock for “MagicCookie” on

your hard drive. You will probably find one.

Who's Got my Number?

It seems straightforward that cookies are a means of communication between you and a particular Website. But when you open your cookie file, you may find servers listed that you never visited. How did they get there? Probably via what is known as a "cookie sharing ring." Cookie sharing rings, such as DoubleClick, AdKnowledge, and others, contract with Websites to run ads and use cookies to determine which ads you would be interested in viewing, and which ads you've already seen.

According to Stanton McCandlish, program director of the Electronic Frontier Foundation, it works something like this: "Say we went to a Website called Tshirts.com and they arranged with a cookie sharing ring called Cookiesareus.com to track ads. Then the cookie will come from Cookiesareus.com, and that information might also be available to Cookiesareus.com's other 400 customers." Thus, as a result of your visit to Tshirts.com, a cookie from Cookiesareus.com winds up in the cookie file of your hard drive.

So, imagine that many, many Websites are subscribers to Cookiesareus.com. After that, you may receive specific advertising banners from that site that are geared to your specific interests. It's a marketer's dream, but not perhaps what you had in mind. Depending on what information you have given out, you may be targeted for junk e-mail, since Cookiesareus.com may have shared that information with its member companies or other third parties. Still, McCandlish cautions that it is not clear how much junk e-mail cookies generate.

Cookies Don't Have to Be Creepy

Is there something inherently wrong with cookies? Not if service to the Web surfer is all it's used for. Says McCandlish, "Not all these cookies are doing things you don't want them to do, but you can't be sure." Thus, you should evaluate the sites that are sending you

Good Cookie Management

You don't have to employ the service of a cookie blocker to control your cookies. You can manage them yourself by taking the following steps:

1. If you don't like the concept of cookies, avoid using customized search engine portals, such as My Yahoo and My Netscape.
2. Give information judiciously to Websites that use cookies.
3. Accept cookies only from the Website you are visiting by setting this option in your browser preferences.
4. Examine your cookie file and remove servers that you don't want to have information about you (Internet Explorer only).
5. Before you enter information about yourself on a Website, check the site's privacy policy.
6. You can make sure that a site is following its stated policy by checking with independent trust assurance organizations, such as TRUSTe and BBBOnline, the Better Business Bureau. Websites that display seals of approval by these organizations are adhering to specified privacy policies.
7. If you don't like a cookie, drag the MagicCookie file to the trash.

cookies on a case-by-case basis and be wary of cookies sent by sites other than the ones you are intentionally visiting.

"There's nothing intrinsically wrong with cookie-sharing rings. At best they keep us from seeing the same boring ads we don't care about over and over again and may actually help us be presented with ads for products we genuinely care about, at multiple sites. At worst they could be abused for really invasive marketing. The infrastructure right now does not make it easy for us to check up on it," McCandlish says.

Also be wary of sites that send cookies when they have nothing to sell. These sites may be gathering information about your browsing patterns.

Cookies cannot extract information from your hard drive; they only store information that you freely share. "People need to understand that cookies don't record what you have not given them," McCandlish explains. That means if you don't want your mailing address, telephone number, social security number, or your mother's unmarried name stored in a data file that can be sent to a remote server, then don't enter them into any online form.

But many Websites are trustworthy, especially those showing the seals of

BBBOnline and TRUSTe, another online service that specializes in privacy. Says McCandlish, "You don't mind giving a cookie to someone you trust. People should not fear cookies; it's just another medium, like e-mail. It's not the technology, but what people are doing with it. The information we give out is the root of the problem." ■

Web Resources

BBBOnline (Better Business Bureau),
www.bbbonline.com

Center for Democracy and Technology,
www.cdt.org

Computer Professionals for Social Responsibility,
www.cpsr.org

Cookie Central,
www.cookiecentral.com

Electronic Frontier Foundation,
www.eff.org

Electronic Privacy Information Center,
www.epic.org

Internet Junkbuster,
internet.junkbuster.com

Privacy Rights Clearinghouse,
www.privacyrights.org

TRUSTe,
www.truste.org

Cookie Blockers

Are you completely at the mercy of cookies? Not at all. There are several ways you can control cookies from within your browser.

In Netscape 4.5, the Preferences Advanced menu gives you several options: Accept all cookies, Accept only cookies that get sent back to the originating server, Do not accept cookies, and Warn me before accepting a cookie.

Microsoft Internet Explorer has a somewhat more flexible setup. In the Preferences screen under Cookies, you can not only view which servers have sent a cookie to your hard drive, you can also remove any server you want. You can also tell the browsers either to ask or not ask your permission to accept cookies, either for each cookie or each site.

Of course, you can turn off all cookies or ask to be alerted whenever a Website wants to send a cookie, but that might prove inconvenient, as you may spend more time responding to browser alerts than viewing Websites. Moreover, some sites require cookies in order to operate correctly. The next best thing is to accept only cookies from the originating server, which is an option that you can check in the Preferences for both browsers.

Also, specific Macintosh utilities, such as Cookie Cutter, Scape Goat, CookieCleaner, Cookie Monster, NoMore Cookies, and Default No Cookie, can be downloaded from the Cookie Central Website. These give you many ways to manage cookies.

"Ideally, I'd like the cookie-acceptance window to have a button for 'Visit cookie-issuing site' and 'Examine cookie-issuing site's privacy policy' (with a sub-button on that page for 'Is this site's policy audited, and by whom' showing any TRUSTe, BBBOnline, and similar certifications), but the technology isn't quite there yet," says Stanton McCandlish, program director of the Electronic Frontier Foundation. "There needs to be some specs for what a standard location on any site for a privacy policy is, and a standard format for those policies and their certifications so that the browser itself can check on them."

connections [Bookmarks]

Jolly Roger Invades the Web

Click on to free radio

Bookmarks was pondering the airwaves the other day — in fact, we spend much time brooding over them — and wondered when was the last time you tuned in to a radio broadcast featuring unique voices, politically dissident points of view, local bands performing live on the air, and local news that was not simply repeated throughout the day? In other words, programming that wasn't jam-packed with commercial messages or pleas for money?

In fact, we wondered when was the last time you were really engaged by a radio broadcast? If you are like us, then it's been too long.

Today, most listeners are treated to an endless array of market researched music selected by corporate executives thousands of miles away, and announced by disk jockeys with playlists. Otherwise, there's endless, homogenous national programming. Not so on micro radio.

In our neighborhood, Friday nights means the Reggae sisters, I-Light and Rozy Share, serenade listeners in San Francisco with two hours of politically conscious tunes before the animal rights program comes on. Earlier this week, several band members sang folk-rock live on the air. Last night, we heard an interview with an author who has just written a book about violence against women in prison. All of this emanates from a small, dark, rather cramped studio out near the beach broadcasting at 40 watts, and serving, by some estimates, hundreds of listeners.

Most radio stations are huge multi-megawatt enterprises that take up loads of space on the radio band broadcasting the lowest common denominator material, thus delivering consumers to their advertisers rather than delivering programming to their listeners. What do they care about some small local band on the club circuit that's not signed with a major record label?

Much of this may change with new rules now being considered by the Federal Communications Commission (FCC) that would once again legalize low-power FM radio, also known as micro radio.

That's pirate broadcasting to you — at least that's what it is today, because low-power FM is still illegal. The government, under pressure from the communications conglomerates and National Public Radio, outlawed low-power FM in 1978 because it wanted to use the radio spectrum more "efficiently." The 1996 Telecommunications Act made matters even worse by allowing for the increased consolidation of radio broadcast outlets nationwide.

But that hasn't stopped hundreds of micro broadcasters — those transmitting signals at less than 100 watts and who have no chance of getting a license, from taking to the airwaves in a massive act of electronic civil disobedience. 🐉



So where can you find the “real” radio stations — the ones with original, locally produced, non-market-researched content? There may just be one in your neighborhood.

If you want to find a micro radio station near you, the first place we would suggest is the Radio4All Website, *the* destination on the Web for any pirate radio aficionado, and *the* cool place to be listed for any station broadcasting in the micro radio movement.

Radio4All not only lists links to many pirate radio stations that have Websites, but it also acts as a comprehensive news service and clearinghouse for the worldwide micro radio movement, including the latest government raids on micro radio stations and the latest news concerning the FCC’s new rulemaking proposal.

For those who are interested in some international flair — and a Website with a genuine sense of history — Bookmarks recommends Pirate Radio of the Offshore Kind. While the stations on this site and its links (the ones that are still operating, of course) are not subject to U.S. government laws, the site gives you a real sense of the grassroots, international, and historical nature of the micro radio movement. *Radio 4 All*, www.radio4all.org
Pirate Radio of the Offshore Kind, www.guernsey.net/~bebridel

Free the Airwaves

While Radio4All gives a universal view of the micro radio scene and points you to some of the coolest micro radio station Websites, we had this inclination to, well, get more specific about who’s out there broadcasting in our small corner of the earth.

San Francisco Liberation Radio, the only micro radio station now broadcasting in San Francisco, is a 40-watt station located on the city’s west side, providing programming (they’re proud to say) that you can’t hear on government-licensed radio stations. Their Website not only has information about station programming, but it also contains archives that chronicle the micro radio movement, links to FCC documents, a complete Automated Activism project to legalize micro radio, and links to many other micro stations and resources. You can also hear the famous Carol Denney’s free radio anthem, *Set Your Radio Free*.

What would the micro radio movement be without Free Radio Berkeley, which spent several years in court fighting an FCC injunction against it? While it took several years, the Federal District Court in Oakland eventually gave the government what it wanted — silence at 104.1 FM. Free Radio Berkeley is not broadcasting (at this writing anyway, but you never know, someone may be up in a tree transmitting a program as we write), but they still maintain an excellent Website.

Looking for more than just a treat for your eardrums? You can talk about micro radio to other practitioners of the trade at the Free Radio Network Website, which includes a threaded discussion board, chat room, and lots o’ information.

And for the legal rap on micro radio, well, we suggest you talk directly to the lawyers. The Committee on Democratic Communications of the National Lawyers Guild, which represents both Free Radio Berkeley and San Francisco Liberation Radio, has a pretty spiffy Website of its own (for lawyers). If you go there, you can sign on to their proposals to legalize micro radio and set the airwaves free.

San Francisco Liberation Radio, www.slip.net/~dove

Free Radio Berkeley, www.freeradio.org

Free Radio Network, www.frn.net

National Lawyers Guild Committee on Democratic Communications, www.nlgcdc.org



B92: War vs. Free Speech

Radio B92, which for 10 years has broadcasted the voice of resistance inside Serbia, was silenced by the Belgrade authorities just as the U.S. and its NATO allies commenced bombing attacks on Yugoslavia. The radio station had condemned both the bombing and the Milosevic government, and was the only independent source of information inside Serbia.

And for that, B92 was raided by the Serbian police, its editor, Veran Matic, detained for 10 hours, and the station taken over by the government, which is now using the B92 frequency to broadcast its own propaganda.

Sympathizers around the world have rallied in support of the controversial station. Writers, activists, journalists and others have staged a massive campaign to help B92

broadcast the truth about the war in Yugoslavia. The effort, called Free B92, is online courtesy of XS4ALL, an Amsterdam-based Internet Service Provider.

With their help, Radio B92 was able to broadcast programs on the Internet, where their digital signal was picked up by the BBC World Service and satellite EbS re-transmitted via satellite. Thus, B92’s uncensored broadcasts were heard in Serbia via a network of local stations. That ceased in early April, and late word has it that the staff, still in Belgrade, is in grave danger.

<http://helpB92.xs4all.nl/>



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ONi

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Bungie Software, the company that rewrote the rules for strategy games with Myth and Myth II, introduces Oni, an action game that will redefine the genre. As Konoko, you'll fight through huge futuristic 3D environments using a ground-breaking combination of gunplay and hand-to-hand combat to defeat hundreds of devious opponents. From your first bullet to your last kick, surviving Oni's high-tech world of crime and deception will take everything you've got.

BUNGIE

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Phantom Learning

Star Wars Fever Helps Kids Learn.

Attendance at George Lucas' *Phantom Menace* may be waning on screens across America, but the Star Wars phenomenon has spawned two educational computer games (with two more due out shortly) destined to give children hours of additional Star Wars pleasure with parents' blessing.

DroidWorks and *The Gungan Frontier* are educational games (don't tell the kids!) deftly exploiting the Star Wars franchise to deliver educational content in surprisingly innovative ways.

The titles (both Mac and Windows version are included on each CD-ROM) were created by a tiny little division in the Lucas empire known as Lucas Learning, though you wouldn't know it by the game titles or by glancing at the boxes emblazoned with the Star Wars logo and characters from the movie. In fact, on the outside the games don't look that much different from shoot-'em-up video arcade classics.

"We created them with a game look because licensing and property is so important in the consumer market. Most kids 10 and up aren't looking for educational games, so our strategy is to use the license for all it's worth in our first few products in order to get the word out and start building awareness that Lucas Learning is a different entity from Lucas Arts," said Susan Schilling, general manager at the San Rafael, California based company.

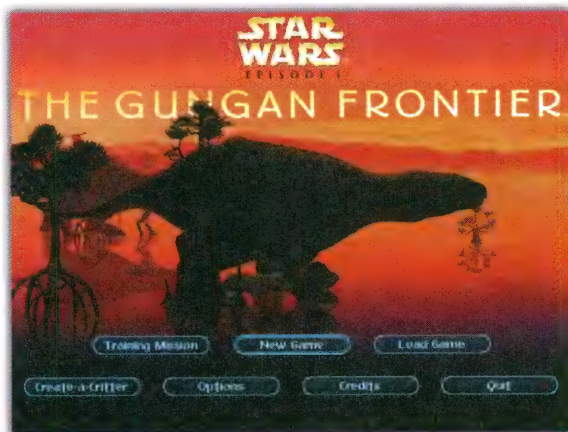
But you can't judge a computer game by its cover. Load up either one of these two titles and there's hardly an intergalactic weapon to be found. Instead, kids enter an "immersive environment" in which they absorb all sorts of skills and concepts, often without realizing

game that enables players to learn and apply scientific principles as they play. Players begin by inventing and designing 3D robotic droids in a visually compelling Jawa Droid Workshop on the planet of Tatooine. With 88 different robotic parts, players can create 25 million different droids. The droids are then sent out to complete a series of 29 missions.

Fun so far, but now comes the learning. Immediately, players discover the consequences of their droid-building choices and must return to the Workshop to make adjustments. If your droid, for example, can find, open, and pass through a security door, the player can go to the InDex (a built-in science encyclopedia) to get a better understanding of how a lever and fulcrum work. Armed with this knowledge, the player can make several choices: return to the workshop and build a droid heavy enough to operate the door lever or have the droid adjust the position of the lever's fulcrum to make it easier to use. In both cases, kids are learning some fundamental scientific principles.

"As they're playing, kids don't realize they're learning the science of force and motion, light, magnetism, and simple machine dynamics," said Schilling. "With a pure entertainment product, you have fun with it and say 'that was a wonderful two hours, what am I doing next?' But the goal of our products is to give users that entertainment experience as well as jam a lot in that they can take away with them."

It's more than mere skill sets that



that learning is taking place.

"We start with the proposition that if you have something that is really engaging for kids, they'll love it. There is a stereotype that kids don't like to learn. We don't buy it," said Schilling.

DroidWorks, for example, is designed for children ages 10 and up. It is part virtual construction set and part strategy

Lucas Learning producers are aiming for. “While it’s great to teach kids specific definitions and concepts, more importantly, we want to give children an opportunity to develop ideas and concepts that really apply in that larger sense to how things operate in the world. We hope kids come away with skills like problem solving, creative thinking, and hypotheses testing,” said Jane Boston, director of research and content at Lucas Learning.

DroidWorks has already won several industry awards for excellence, including the British Academy of Film and Television Arts’ Children’s Award for interactive media and Education Game of the Year by *Gaming Industry News*.

New Frontier

In terms of creative thinking and problem solving, *DroidWorks* is eclipsed by Lucas Learning’s newest game, *Episode I — The Gungan Frontier*. The game, released concurrently with the movie in May, and aimed at kids nine and up, is a simulation of real-world ecological principles.

The ultimate goal is to help the Gungans create a thriving new city in which they can live happily. To do so, players must create a stable ecosystem from which the Gungans can harvest plants and collect animals that they’ll use for food, construction, maintenance, and medicine.

While attempting to turn unpopulated land into a viable swamp and undersea city for the Gungans, players learn about the interdependence of organisms and environment, populations and ecosystem dynamics, regulation and behavior of organisms, food webs, life cycles, and symbiosis. Take that, *Mortal Kombat*.

The game is designed to teach flexibility in thinking, working alternate pathways to a goal, and generating multiple answers. “I think about the kinds of decisions that kids will be making in the future, and these are the skills kids will need. Hopefully our games are giving them lots of practice with this kind of decision making,” said Schilling.

Schilling says one of her most rewarding days during testing was when an eight-year-old, engrossed in the game in

a room full of developers, blurted out: “It’s a delicate balance!” “At that moment, I knew we had succeeded,” said Schilling.

To create the content for *Gungan Frontier*, Lucas Learning relied on an eclectic group of experts. “We started out by talking with population biologists and folks at the university level who were working on ecology, and specifically population dynamics,” said Boston.

The next round was with experts and educators already taking that theory to kids, including the education director at the San Francisco Zoo; designers from San Francisco’s famed hands-on science museum, The Exploratorium; as well as classroom teachers, biology teachers, and, of course, kids themselves.

But Lucas Learning producers are not interested in mimicking grade-level content guidelines set by the states or local boards of education. “We look very carefully at what kids are doing in schools, but we don’t limit ourselves to that content. Instead, we try to step up to the level where kids can actually understand the function-

ues.” Much of the artistry and programming is done by the artists and programmers right down the hall who help create Lucas Arts products as well as some of the special effects in the recent *Star Wars* movie.

And a great look is imperative, said Schilling. “Kids are visually educated about what they expect to see in a *Star Wars* universe. We need to live up to that because we don’t want to disappoint the fans or people who have already formed an impression about what that experience is like.”

The high production values also keep kids interested during that crucial moment when they begin to play and realize the game is not a “race or fight” game, like so many others they’ve



That ain't no C3PO *DroidWorks* gave kids the opportunity to build and control their own droids.

played. “There’s always one moment of hesitation, but then the kids quickly get into the world and understand it’s a different type of experience,” said Schilling.

Working so closely with game creators has its downside as well. “The codevelopment process has been a challenge for us at times. A lot of our staffers are young gamers themselves, and they will say, ‘here is where you blow that thing up.’ But we have to say: ‘wait a minute, how can we push past this?’” said Schilling.

The company obviously has the blessing of George Lucas who has backed up his often-stated commitment to educa-

ality of the content they are learning in school,” said Schilling.

Look, Ma, R2D2!

Lucas Learning brings several advantages to the educational game market that other companies can’t match, according to Schilling. The first is what Hollywood loves to call “production val-



The *Gungan Frontier* features all manner of Star Wars' life.

tion with the funds necessary to create educational products, even if they don't create an immediate return.

A Younger Audience

Both *DroidWorks* and *The Gungan Frontier* are designed for kids nine and up, but this September, Lucas Learning is releasing new two games, one of which is designed for six- to eight-year-olds.

Yoda's Challenge is designed to immerse children in math, reading, and music activities. With the help of Yoda, kids choose among six activities that take place on Naboo and Tatooine. Each activity focuses on different educational content while the kids interact with Star Wars characters and settings.

Yoda's Challenge exposes kids to the fundamental elements of character development, including critical thinking skills, word recognition, vocabulary, reading comprehension, early music skills, basic geometric concepts, spatial relationships, and visual perception.

"We've had to go through another whole education process with our development, because designing for a six-year-old is very different from designing for a 10-year-old," said Schilling.

The developers also worked hard to differentiate their product from the prevalent interactive model used in designing computer games for early learners. "A lot of programs out there are based on mastery learning, so if you get eight out of 10 questions correct, you get the balloons and you graduate to the next set of skills. There is certainly a role for these types of programs, but we wanted to create a product where the content is

tightly tied into the interface instead of presented as isolated craft categories," said Boston.

The second new game, *Pit Droids*, is targeted again at kids 10 and up. *Pit Droids* is a fast-paced puzzle game with over 300 puzzles in six Star Wars environments.



And like its predecessors, *Pit Droids* is designed to camouflage learning. To complete the puzzles, players must gather and use evidence, form and test hypotheses, and develop and use logical reasoning skills while dealing with various mathematical concepts, such as geometry, numeracy, attributes, sets, and networks. Players can even create their own puzzles and e-mail them as attachments to challenge their friends.

A Learning Force

The games deliver, and at under \$39 in stores, they're priced right. However, system requirements — especially for *Gungan Frontier* — may be too high for that family-room computer you bought two years ago (see review on page 50 for specs).

"Star Wars is about a lot of things. Action and special effects, certainly," said Schilling. "We at Lucas Learning have picked the Yoda side of things — the mentoring, the learning, and personal development — the Jedi traits."

So the next time you're looking for a good educational game, don't pass the Star Wars aisle so quickly. Your kids will be happy to get something Star Wars and you'll know you're getting them something worth while. Besides, Yoda's a darn good teacher. **III**

Where Goes Lucas Learning ...

Way back at Macworld New York '98, the expo that brought back the Mac, there was a tiny booth in the rear of the education section that had a working demo of *DroidWorks*. Most gaming enthusiasts were shocked: Lucas Arts hadn't made anything for the Mac in almost three years, and Lucas Learning was a relatively unknown company. Since Lucas Learning's decision to bring its titles to the Mac, Lucas Arts has followed suit. Let's take a look at why we missed Lucas Arts' games so much.

Lucas Arts has always made top-notch games with little or no violence. In 1993, Lucas Arts released *X-Wing*, a game so great, it brought Star Wars back into the forefront of the American underground. Who wouldn't love the chance to fly alongside Wedge Antilles and Luke Skywalker against the Death Star? Ironically enough, *X-Wing* was not only the title that launched Lucas Arts' future, it was one of the last titles to be published for the Mac before the long drought.

After *X-Wing*, Lucas Arts began to produce numerous cross-platform titles, such as *Tie Fighter*, *Full Throttle* (which featured the voice of Mark Hamill), *Sam and Max Hit the Road* (in my opinion, the funniest video game ever released), and *Rebel Assault 1* and *2*. Alas, the heyday ended, and the Mac became passé. We missed out on such great titles as *Jedi Knight* and *X-Wing Vs. Tie Fighter*.

With the return of Lucas Arts to the Mac come two new Episode 1 titles, *Pod Racer* and *The Phantom Menace*. These two games are a great bet for parents who are concerned about the violence in modern video games, as they are both relatively nonviolent yet remain entertaining. This continues Lucas Arts tradition of offering wholesome and unadulterated fun.

Humongous Entertainment Inks NFL

Signing big-name stars ain't just for the big kids any more. Humongous has signed Jerry Rice, Steve Young, Brett Favre, and other big-name NFLers to appear in their upcoming **Backyard Football**. The stars will appear as kids in the game, and players will be able to draft their favorite stars onto their team. In addition to the NFL, Humongous has also signed contracts with major league baseball and soccer franchises for players and teams to appear in Backyard Baseball and Backyard Soccer. The games should hit the field this September. *Humongous, www.humongous.com 800-499-8386.*



Vtech to Release Magical Album

Uncle Albert's Magical Album was a wild success in France, and the title will be appearing on US shelves courtesy of Vtechsoft Inc. It's difficult to describe the title without getting too deep into programming gobbledygook, but the basic story behind it is that your wacky uncle Albert has left you an album filled with puzzles, stories, and even animals. The game looks fabulous and allows children to learn without resorting to the typical "2+2 equals 4" rigamarole.

Vtechsoft Inc., 714-734-4800, www.vtechsoft.com

Purple Moon Back on Track

Purple Moon was feared lost after it posted a huge debt earlier this year. Enter Mattel Media. The toy-maker's software division swooped down and saved the girls' software company, and they are now showing the fruits of their labor. In October 1999,

Purple Moon will release **Secret Paths to Your Dreams**, a digital

dream journal. Girls will be able to log their dreams and use images to describe them. Also being released in October will be Rockett's Camp Adventures, the newest in Purple Moon's successful Rockett series. Finally, Rockett Movado will be reappearing in all of her former glory in the Rockett Collection, a compilation of the five previous adventures featuring Purple Moon's mascot.

Mattel, 888-278-7753, www.mattel.com



Edmark: Bringing Thinkin' Things

Edmark, a division of IBM, announced new developments in its **Thinkin' Things** titles at E3. Its newest title, All Around Frizzle Town, should be out by the time you read this. The game features numerous abstract learning activities, which teach a wide range of skills. Rather than the normal curriculum of reading, writing and, 'rithmetic, the Thinkin' Things series focuses on skills such as pattern recognition, audio and visual attenuation, and many other oft-ignored abilities. In addition to All Around Frizzle Town, Edmark will also be rereleasing its three previous titles with updated graphics and sounds.

*Edmark, 800-691-2985
www.edmark.com*



IBM Partners with Brain Quest

Speaking of IBM, the boys in blue have announced that they'll be putting those **Brain Quest** decks onto your Mac soon. These decks of trivia for kids are loved by teachers everywhere, and now IBM is bringing them into the digital age. For those of you who haven't seen them, Brain Quest decks are packs of trivia for kids stacked like paint sample cards. Each card has a number of questions ranging from "Who found America?" to "What color do you get when you mix blue and red?" The basic \$20 program will be released in October 1999, and for \$4.95, parents will be able to download extra decks of questions for the program. Your future Jeopardy champ should brush up on his or her buzzer finger: the Brain Quest games will feature a four player competitive mode too.

*IBM, 800-320-8377
www.ibm.com/pc/athome*

Reading Blaster: Vocabulary

★★★★

\$30, Knowledge Adventure

800-542-4240

www.knowledgeadventure.com

ages 9 to 12

If your fourth, fifth, or sixth graders have grand aspirations to become wordsmiths, get them started early with *Reading Blaster: Vocabulary*. This program couches what could be bland vocabulary workbook exercises in the kind of exploration-inspiring backdrop that actually makes the English language seem fun.

Strange things are happening in the town of Bizzarville, and kids must help junior detective Rave figure out who, among the strange creatures who live in the vicinity, is the culprit. To do

this, players attend a rather bizarre party at a mystery mansion, where they must win six vocabulary games in order to get the clues they need to solve the case.

The mystery theme is certainly one draw, but surprisingly, some of the vocabulary games are pretty addictive. We're not talking Tetris-quality addiction, of course, but we do mean games that will have kids (and competitive adults) itching to play them more than once.

For instance, in one

game, players are given two words, and they must type in as many original words as they can find using the letters in those words within a time limit and against a computer opponent. The fact that kids get to use the actual keyboard rather than just the mouse to point and click at answers makes this more dynamic than most education products.

Another game plays like Scrabble. Players place letters on the end of a word in order to make a new one. It can get quite difficult, and using obscure words from the dictionary is sometimes necessary. An odd touch in a children's game.

Best of all, the program is expandable: Besides having three levels of play, long after kids master the more than 2,000 words on the CD, *Reading Blaster* allows parents to create new word lists and increase the replayability factor.

Vocabulary can be a rather drab subject in the eyes of children, and getting them interested has been the challenge of parents and teachers for decades. But with *Reading Blaster: Vocabulary*, kids will no longer feel uninspired by the wonderful world of words.

— Cathy Lu

Star Wars Episode 1: The Gungan Frontier

★★★★

\$30, Lucas Learning

888-532-4263

www.lucasarts.com

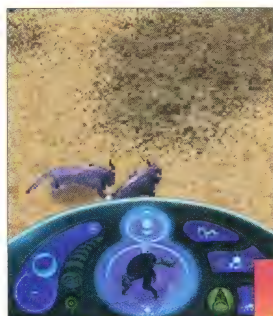
ages 9 & up

Lucas Learning, the newest offshoot of Lucas Arts, has a good thing going for it right out of the box. It's got the whole Star Wars universe to draw from for its games. *The Gungan Frontier*, its second title, uses the Lucas Learning trademark of coating non-traditional teaching with the kid-friendly Star Wars flavoring. It is basically a lesson about the food chain. Players try to form an ecosystem from the ground up, starting with plants and finishing with Rancors (the big ugly guy who tried to eat Luke in *Return of the Jedi*). In truth, this is quite a simple task once you get the hang of it. But it's an excellent way to teach children about our environmental balances.

All of the characters your kids loved in the movie are also in this game: Jar Jar, R2D2, and Boss Nass. They form the framework that will keep children glued to the screen. The Star Wars theme is played to the hilt, and in the grand Star Wars tradi-

tion, everything is defined. Every one of the 50-plus creatures and plants has a background and elaborate illustrations.

The game itself is easy to learn. Players place animals and plants on the surface of the



planet and let them go about their businesses of breeding and eating one another. The trick is to strike a balance between predator and prey.

While the game may be easy to play, finding the correct balance is another story altogether.

While *Gungan Frontier* won't teach your kids how to read or do algebra, it will definitely keep them interested. Plus, it's nonviolent and noncompetitive. It's a must for all the young Obi Wans out there, but if your kids aren't into the Force (yeah, right) you might just want to pass this up for something a little more educational.

— Alex Handy



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 "Bugdom blows everything I've seen away."
- MacGaming.com



www.loucanstudio.com

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www.pangeasoft.net



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Amazon Trail 3rd Edition



\$40, The Learning Company

617-761-3000

www.learningco.com

ages 9 to adult

It's supposed to be an exotic journey through the luscious Amazon region. Yet somehow, the Learning Company's third iteration of its *Amazon Trail* program does more to squelch one's primal desire to explore than it does to encourage it.

The object of the expedition is to find the ancient Incan city of Vilcabamba before

you run out of supplies or get too sick from lack of food to carry on.

However, this journey quickly causes eyeballs to glaze over, as

most of your time is spent staring at the tip of your canoe and holding down your mouse button, some-

times for three or more minutes at a time, while your boat sails and sails and sails ... and sails. None of this would be so bad if the graphics weren't about

five years behind the times; by today's standards, they can only be described as grainy and atrocious.

Along the journey, there are several activities you can engage in. For instance, you can go fishing at any time by using a harpoon and aiming it at any number of fish circling around the canoe. The neat thing about this activity is that when you score a catch, you have to look it up and see if the fish is edible and worth keeping — a not-so-subtle yet effective way to force kids to learn about the aquatic life.

At any time, you can also stop and talk to your river guide — one of four people you select from the onset. Your guide will make comments about how the trip is progressing and suggest how you should continue. There are also times when you will be automatically thrust onto the riverbanks to meet with some of the different tribes in the area. You get a chance to talk to the local villagers, trade with them, and sometimes even do special side expeditions at their request.

The Learning Company's *Trail* series seems to be running out of steam. There is still plenty to learn in *Amazon Trail 3*, but the spirit behind that information has somehow gotten lost. perhaps it's time to journey onto a new trail.

— Cathy Lu

Freddi Fish 4: The Case of the Hogfish Rustlers of Briny Gulch



\$30, Humongous Entertainment

800-499-3686

www.humongous.com

PowerPC required

Ages 3 to 8

If your youngsters are spending their summer aimlessly flitting about the house like tumble-weeds in a windstorm, I reckon Freddi can corral them in front of the computer for a little mystery solving.

In *Freddi Fish 4*, the ever-helpful yellow fish and her loyal sidekick, Luther, must rustle up the rustlers of Cousin Calico's herd of hogfish. Kids help to guide the pair as they meet up with the various

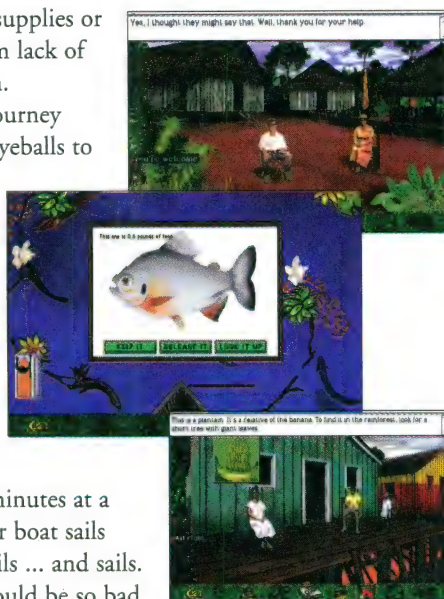
Western-garbed denizens of Briny Gulch, solve puzzles, and, of course, eventually rescue the herd.

Like the previous *Freddi Fish* adventures, this game upholds the tradition of the graphic adventure game. Children guide Freddi around and solve puzzles, find lost keys, and help out those around them. The adventure itself is compelling and challenging. Younger kids will need plenty of help, but older players wearing their ten-gallon thinking caps should get along just fine. The characters provide verbal clues if the player is having trouble, and clicking around on everything in sight is a good tactic, as well as being entertaining. That said, using items in the inventory is a little fussy; you sometimes have to drag the item to a precise point on the screen to use it, which can be frustrating for children.

As with other Humongous titles, several mini-games are incorporated into the adventure, but they seem less compelling than those in some other Junior Adventure titles. Kids can view very short, old-fashioned movie clips at Saltwater Stella's sodaloon, customize a "Wanted" poster, or play the arcade classic: *Oysteroids*.

Overall, *Freddi 4* is a quality CD-ROM that kids won't soon tire of. The mystery takes hours to solve, and the quests within the game change slightly every time they play. Add to that the inherent lovability of Freddi, and you've got a great game on your hands. Lasso a copy and bring it on home.

— Carrie Shepherd



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E3 Phone Home

A Wrap-Up of Everything E3

So, E3 (Electronic Entertainment Expo) has come and gone, and what a show it was. The annual event showcases the biggest and baddest videogaming technology out there, and this year's show in Los Angeles (May 13-15) was the biggest and baddest yet. The Expo is the perfect example of just how big gaming has become.

Some of the larger companies, such as Sony, Nintendo, and Sega, spend millions of dollars on exhibition booths. The event is truly a spectacle that must be seen to be believed. Booths are festooned with everything from F-1 race cars to the original General Lee from the Dukes of Hazzard. Giant robots tower over the show floor while models dressed like Lara Croft (of *Tomb Raider* fame) strut around wearing very little.

But the true goal of E3 is not to deafen its attendees with bass-heavy techno music or blind them with remote controlled laser lighting. No, the true goal is to get gaming products ready for the Christmas season. Most of the games shown won't be completed until the Fall — just in time to be snatched up by ol' Saint Nick. So without further ado, let us venture forth into the future of gaming.

Bungie Jumping

Let's start with Bungie, the venerable Mac-loving company that brought us *Marathon* and *Myth*. Its newest product, called *Oni*, is a new spin on the third-person action genre made popular by *Tomb Raider*. *Oni*, like *Tomb Raider*, fea-

tures an attractive female protagonist named Konoko. The similarities between *Oni* and *Tomb Raider* end there, however. *Oni* is not a puzzle-based game; it's an action game. Konoko swings around the



screen like Jackie Chan after one too many cups of espresso. She punches, kicks, and shoots her way through beautifully constructed levels. *Oni* is a breath of fresh air in an otherwise-stale action genre. Be on the lookout for *Oni* knock-offs to show up soon after its release.

Next on the platter from Bungie is the *Mac Sack*. Featuring six top-notch

games, it's the perfect gift for that special someone who has an iMac but doesn't know how to kick virtual butt yet. *Mac Sack* will retail for around \$20, and includes *Marathons 1, 2, and ∞*, *Pathways Into Darkness*, *Abuse*, and the classic but long-neglected *Minotaur*.

Finally, Bungie has a new project in the works. While I can't say anything too specific about it yet, I feel it's safe to say that it will turn the entire gaming industry on its collective ear.

Unreal Time Strategy

Moving right along, we come to MacSoft. While its representatives didn't have anything new to discuss at E3, they did have working betas of *Total*

Annihilation, *Unreal Tournament*, *Falcon 4.0*, and *Age of Empires*.

Total Annihilation and *Age of Empires* are real-time strategy games in the spirit of *Warcraft* and *Command and Conquer*.

Falcon 4.0, the flight simulator so advanced that its manual is thicker than your average phone book, will be out by the time you read this. Finally, *Unreal Tournament*

has taken a few steps back on its scheduled release. With any luck, it will be out soon after you finish reading this article. The graphics look, well, unreal. The game is the pseudo-sequel to the fabulous *Unreal*, and it's made primarily for play over the Internet. While you can still play against 'bots, the game is much more fun to play with a pack of friends.

And speaking of *Unreal*, Simon and Schuster has licensed the *Unreal* engine to power its new Star Trek-based game,

Star Trek Deep Space Nine: The Fallen. The game follows the story of the current season and includes elements of (alert! Trek talk to ensue) the Pa Wraith, the Dominion, and the Obsidian Order. It should be an interesting twist on the Star Trek theme, especially considering the dearth of well-done Trek games in recent years (*Klingon Honor Guard* being the exception).

Havas and Have Nots

From the icy depths of Blizzard comes *Brood Wars*, an add-on pack for *Starcraft*. After the long delay of *Starcraft*, it should please Mac gamers to know that Blizzard is working 'round the clock to get *Brood Wars* out quickly. It will definitely be out when you read this. Also in the works from Blizzard is *Diablo 2*, the sequel to one of the best role-playing games ever. One improvement to *Diablo 2* includes Blizzard's steps taken to hedge the rampant cheating that occurred on Battle.net with the first *Diablo*.

With all the acquisitions taking place in the games industry lately, it's getting hard to keep track of who owns what. But just to clear the record, Blizzard and Sierra are now divisions of Havas Interactive. It appears that Havas is a rather Mac-friendly company, as Sierra has announced a whole slew of titles. First is *Caesar III*, a combination *SimCity*/*Civilization*/*Age of Empires* game. In an anachronistic twist, *Pharaoh* will be coming shortly after *Caesar*. *Pharaoh* is basically *Caesar* in Egypt, although there will be many differences between the two. Next we have updates to both the *Gabriel Knight* and *King's Quest* series. And finally from Sierra is the absolutely brilliant *Half Life*. The amazingly successful first-person shooter will hopefully be coming to the Mac in time for the holiday season.

Descent Into Radness

Graphic Simulations, known for *FA-18 Hornet*, will be releasing two highly anticipated games soon. The first, *Descent 3*, should be out around the end of September. It's the next development in the line of *Descent* games, and it features stomach-churning realism. This game should have an air-sickness bag included:

After only a few seconds of playing, you genuinely forget which way is up. Also on the way is *Baldur's Gate*, the role-playing game of the year. *Baldur's Gate* answers the prayers of *Dungeons and Dragons* fans everywhere. It uses *Diablo*-like gameplay and official D&D rules to create the first true book-and-dice gameplay



on a computer. Dust off your 20-sided dice; you're gonna need them.

The Word of GOD

Across the street from all the hub-bub and capitalism that is E3, the Gathering of Developers, or GOD as they so haughtily call themselves, was showing two Mac titles. First was the long-awaited *Fly!*TM (how they trademarked that I don't know). This will be the first noncombat flight sim for the Mac since the acclaimed *X-Plane*. *Fly!*TM features a fully terrain-mapped United States. You'll be able to fly coast-to-coast and see the ground accurately displayed below you.

Next on GOD's roster was *Nocturne*, a *Resident Evil*-like horror game. *Nocturne* is set in the 1930s and features some amazing graphics. Some of the scenes they showed us were truly frightening, featuring zombies and werewolves who appear from out of the dark suddenly to attack.

Stick to Your Guns

On the hardware side of things, the iMac



Old TV shows and iMacs: From *Planet of the Apes* to *The Dukes of Hazzard*, they're making games out of anything nowadays. Apple, above, stayed out of the fray by using a side room to show off its wares.



has sparked a renaissance in the Macintosh joystick market. Almost every controller manufacturer at the show had a USB peripheral that

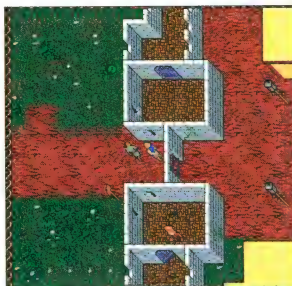
was iMac ready. Saitek is planning to bring over a throttle- and stick-based system that should answer the calls of most flight simmers. Also coming from Saitek is the Mac's first tilt-sensitive controller. It's a little hard to describe the way it works, so let's just say that this thing makes driving games a breeze.

This year's show was an eye opener for the Mac world. Whereas in the past, developers greeted Mac gamers with a snide smile and sympathy, this year they were ready to talk business. Apple has done a lot of work towards their goal of making the Mac a viable gaming platform again. If this trend continues, we should all be losing a lot of productivity to games in the coming months. **VIII**

Ambrosia's a Comin'

Ambrosia, the granddaddy of Macintosh shareware gaming, is coming closer and closer to releasing *Cythera*, its first role playing game (RPG). After showing a bit of the title at Macworld New York last year, Ambrosia's been sort of absent from the mainstream for awhile. Its most recent game, *Slithereens* did not receive the attention an Ambrosia release usually gets from the Mac community. With the Mac games market in a period of growth, some are predicting the end of shareware gaming. *Cythera* will be a game to watch, as it will be Ambrosia's first venture into the iMac market. The game should please most hardcore RPGers while maintaining an accessibility for most new gamers. And best of all, it will be shareware priced (around \$25). In addition to *Cythera*, a second title, *Farazel's Wand*, should also be nearing completion.

Ambrosia Software, www.ambrosiasw.com, 716-325-1910



Nanosaur Creators Bring You Bugdom

Those wacky guys over at Pangea are hard at work on *Bugdom*, a title that continues the graphic elegance they created in *Nanosaur*. The title should be out by the time you read this. The beta version shown at Apple's booth at E3 was quite impressive, and the world that Pangea has created teems with life, unlike *Nanosaur*. Slugs, flies, ants, and countless other insects populate the game's world. It appears that Pangea is about ready to release the game, once they work out a few bugs (hah!). Another note from the world of Pangea: they have rereleased *Weekend Warrior* as shareware. This reject from the early 3D era (circa three years ago) was a strange game that got even stranger with hardware acceleration. Its graphics were cutting edge, like most of Pangea's games, but its gameplay was rather weak. Pop on over to Pangea's Website to check it out.

Pangea Software, www.pangeasoft.net, 512-367-8116



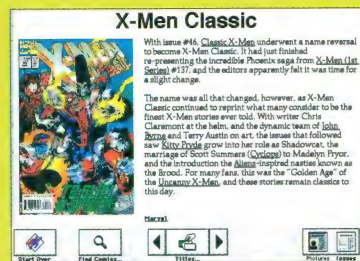
We're not in Kansas Anymore, Toto

Whatever happened to the adventure game? If you've been wondering, your answer is coming shortly. Ray Dunakin, creator of *A Mess O' Trouble* has released *Twisted Deluxe*, an updated version of his classic *Twisted*. Forged in the traditions of *Myst* and the World Builder games of the early nineties, *Twisted Deluxe* should prove to be a light in the dark for fans of the classic tongue-in-cheek adventure games. A word of caution, however: Ray's games are littered with some of the worst puns you'll ever hear. *Twisted Deluxe* can be downloaded at www.semitech.com/marc/ray.html.



More Reasons to Stay at Home

Getting fed up with the hustle and bustle of the outside world? What better way to become antisocial than cataloging your entire comic book collection



by staple type? Now there's a program to satisfy the bean counter in every comic book collector. Human Computing's ComicBase brings comics into the investor's age. It includes price tracking over the past four years, so you can chart your annual growth in profit. Goodbye society, hello Spiderman. Human Computing, 408-226-6883 www.human-computing.com

Dragon's Lair 3D Planned for Mac

In 1983, Don Bluth, of *Anastasia* fame, got together with Rick Dyer, creator of the first holographic game ever, and created the ground-breaking *Dragon's Lair* arcade game. The title was the first ever to use a laser disc and to be fully animated. Although it was more of an interactive story than anything else, it was still amazing. So, riding atop the video-gaming nostalgia wave, the pair have teamed up again to create a new installment in the series, *Dragon's Lair 3D*. The plan is to release Mac and PC versions at once. The game will be coded by Blue Byte, the same people who brought us *Settlers 2* and *3*. *Dragon's Lair 3D* coding begins soon for a release aimed at the 2000 holiday season. Blue Byte Software, www.bluebyte.com, 800-933-2983



Carmageddon 2: Carpocalypse Now



SCI, Interplay

www.sci.co.uk

\$50

ages 18 and up

Okay, let's get this out of the way first. This game is sick. It is the most violent, out-of-hand, inconsiderate, and irresponsible game ever to grace the screen of a computer. The carnage is completely gratuitous and the language is unnecessarily obscene. That being said, if you're easily offended, this game is definitely not for you. But no matter what you think of *Carmageddon II*, remember this: You have been warned.

That said, *Carmageddon II* is the best driving game ever, period. Nothing else comes close. Even without all the flashy graphics, exuberant violence, and wry sense of humor, this game would still kick major tuc-cus. Have you ever dreamed of reenacting the car chase scenes in *Mad Max* or *The Blues Brothers*? This is your chance. If you've ever wanted to floor it down Main Street in a customized 'Vette, or plow through rush hour traffic in an industrial-strength dump truck, this is your game.

Here's the idea behind all the mayhem: you're in a combination demolition derby/drag race/stunt competition/homicidal killing spree. You start out the race in a typical pole-position formation, and from then on, it's a no-holds-barred free-for-all. You'll race against a full line-up of sociopaths who are trying to kill everything that moves. But that's okay, because you're trying to kill everything that moves, too. The rule of thumb here is, if it moves, slam into it at 100 mile per hour.

The racing circuit is divided into segments of three races each. At the end of each segment is a goal-specific race, in which you are instructed to accomplish a set task, such as finish four laps in under five minutes or destroy all the satellite dishes in the city. The courses range from downtown in a major metropolitan area to the deck of the newly christened aircraft carrier, the U.S.S. Lewinski.

Along the way, you pick up extra money and time by running over innocent bystanders, much like in the movie *Death Race 2000*. This is where the controversy comes in. It might not be quite so objectionable if the pedestrians weren't modeled in true 3D. They fly off your hood, smack into walls, and generally disintegrate in a much more realistic fashion than in the original game. And as an added "bonus", there are now animals to run over as well.



The graphics are striking, as would be expected from a hardware-accelerated game. With a Rage 128 or Voodoo II card, everything is picture-perfect. But the graphics, violence, and coarse language are not what make this game great. The physics model is what gives *Carmageddon* four of the five apples it's receiving. The physics model is the code at the heart of a game that tells the computer how individual objects interact with each other. It determines such things as specific gravity, velocity, mass, and how much damage you take when you wrap your bumper around a lamppost. Almost everything on the map is moveable. Trees topple over onto your opponents, pinning them helplessly as you back up for the perfect head-on attack. Cars fly into view from out of nowhere, launched into a spinning headlong dive by a well-placed ramp.

Finally, the vehicles are far beyond cool. Of course there are your standard hotrods, such as Porsches, Lamborghinis, and Corvettes; but the real draw here is the cars you never thought you'd see in a video game. There's a massive dump truck (so big, in fact, that it can't fit through the check points), a WWII German Stuka (yes, the dive bomber), a forklift, two semi trucks, and even a wheat-harvesting combine.

Carmageddon II is definitely not for kids. It's a grotesque game with absolutely no ethics. And boy is it fun. This is one of those guilty pleasures you should play with the lights out while everyone's asleep. Just try not to hoot and holler with glee too much; you'll wake up the neighbors.

— Alex Handy

Cyborg 3D



Saitek

310-212-5412

www.saitekusa.com

In the world of joysticks, there are really only two laws that seem to hold for almost every product: Thou shalt not have fewer than four buttons, and thou shalt not consort with south-paws. The Cyborg 3D adheres to the first law and blatantly ignores the second. To begin with, the stick is completely customizable. By using a small Allen wrench that snaps into the base of the stick, you can move many of the stick's components around to suit your needs. This not only allows you to adjust the stick to fit a smaller or larger hand, it gives lefties something to cheer about.

The Cyborg weighs in with 10 on/off buttons, one eight-direction hat, and a throttle. All those buttons are great, but four of them are positioned at the back of the base, making them hard to reach when you need to use the throttle. In a game such as *Descent*, these buttons might as well not exist, because removing your hand from the throttle is a no-no in the heat of battle.

Speaking of *Descent*, the 3D-swivel action of the stick makes flying through tunnels a breeze.

While it may take some getting used to, after a couple of test runs, you'll be pulling some pretty nifty moves. Once mastered, the Cyborg 3D can allow for some amazing maneuvers.

Alas, the Cyborg is not perfect. The stick has no physical calibration controls. It's supposed to automatically calibrate when you enter a game, but this is rarely the case. Even in the game included with the stick, *Warbirds*, the controls often get stuck turning in one direction, no matter how hard you try to fix them. And be sure to unplug the Cyborg before you play games that don't use input sprockets, such as *Klingon Honor Guard*: having the Cyborg plugged in can cause you to spin out of control.

Compared to other USB joysticks for the iMac, the Cyborg is truly unique. In everything from its look to its feel, it is in a class by itself. While CH Products' CH 3D can claim that it is a left and right handed joystick, it doesn't compare with the Cyborg.

If Saitek updates its driver software, the Cyborg 3D will definitely earn an improved rating, but for now, I recommend a wait-and-see attitude. This is a joystick of contrasts. Its customizability and numerous buttons make it a must for anyone with high end gaming needs. But its limp driver and badly placed base buttons are extreme annoyances.

— Alex Handy



America's Greatest Arcade Hits 3D



\$20, MacSoft

425-806-0480

The word 3D is starting to become tiresome. It's being tacked onto anything. Soon Rover will be eating 3D Chuck Wagon™ while your toddler plays in real time with his Legos 3D™. Alas, 3D does not always mean better. In *America's Greatest Arcade Hits 3D*, this fact is proved quite well. The games are nothing new: *Munch Man*, *Alien Invaders*, *Tetra-Madness*, and *Qube*

Jumper are *Pac-man*, *Space Invaders*, *Tetris*, and *Q-Bert* respectively. While their new 3D habitats are well drawn, the underlying gameplay is only changed slightly.

There are new elements to some of the games, *Munch Man* and *Qube Jumper* in particular have some nice new ideas. The other two games, *Alien Invaders* and *Tetra Madness*, however, have not made the switch into 3D well. They are both bland and uninspired. Besides, do we really need another version of *Tetris*?

Though *America's Greatest Arcade Hits 3D* isn't a disappointment, it is quite repetitive. Even the most inexperienced gamer has played these games before. If you're really need a fix of gaming nostalgia, you can do better.

— Alex Handy



Austin Powers: Operation Trivia



\$39, Berkeley Systems

www.berksys.com

425-644-4343

[Insert gratuitous Austin Powers quote here] Austin Powers is back in this thinly veiled *You Don't Know Jack* clone. *Austin Powers: Operation Trivia* has everything that made the *YDKJ* series great, as well as everything that made it awful. Like *YDKJ*, this game is side-splittingly funny at times. The jokes are perfect for the Austin Powers license, and Dr. Evil is great.

Unfortunately, it's not the real Dr. Evil. In a parallel that we would rather not have seen, *Austin Powers: Operation Trivia* suffers from host problems, much like *YDKJ*. Cookie, the original *YDKJ* emcee was so good that when he left, the series suffered dramatically. The same goes for Austin Powers; the voices are not done by Mike Myers, and are therefore hard to listen to. You get the impression that the game was done by someone who desperately wanted to be these characters, but couldn't quite do it. It's a shame that the voices are so bad though; the questions are truly brilliant at times. *Austin Powers: Operation Trivia* is humorous, but don't have a thrombo trying to get a copy.

— Alex Handy

Railroad Tycoon II



\$50

Poptop Software

214-303-1202

www.poptopsoftware.com

All Ages

My God, where did my day go? I could have sworn there was daylight outside a second ago. *Railroad Tycoon II* is a devilishly addictive game. It brings back memories of days long gone — days lost to *SimCity 2000* and *Civilization*. Who'd have thought that a remake of one of the best games ever could have been just as good, if not better, than the original? Poptop has definitely put itself on the map with this little gem.

For those of you who aren't familiar with the original *Railroad Tycoon*, here's a quick synopsis: You are a rail baron in the 1800s, and it's your job to build up an empire based upon the iron horse. You lay track, build stations, manage engine routes, and play rough with the competition all in the name of the almighty dollar. The basic principles of the new version remain the same as in the original, but the improved graphics, sounds, and underlying structure of the game are vastly improved.

The game is gorgeous. Everything on the map is animated. Laundry lines flap in the wind, smoke pours from chimneys, and factories are festooned with moving gadgets. The interface is equally ornate, decorated with steam whistles and pressure gauges to add flavor. The visuals really help suck you into the game, which is a good thing if you enjoy being immersed or a bad thing if you forget to pick the kids up after school. This is one of the few games with a nonstandard interface that looks and feels better than the original one.

You'll definitely want to dust off your speakers for this game too. The bluesy harmonica-riddled songs conjure up images of hobos singing sad songs as your American C 4-4-0 trucks along between Chicago and New York. The music is full stereo CD quality and you might find yourself humming the tunes long after you've bought your last watering tower. It's always the mark of a good game if you not only leave the music on, but also end up cranking your speakers to hear it in all its glory.

Under the hood, *Railroad Tycoon II* sports vast improvements in the way the game places items for you. In the original version, it was not uncommon to end up with a horribly ensnarled track due to bad path finding routines. The track positioning system was relatively primitive, and connecting two independent tracks together was an experiment in futility. Poptop, however, has included the ability to choose exactly what piece of track you want to lay down, just in case the you're having trouble getting the computer to figure out exactly where you want that junction to be placed. Also included is a map editor, in case the resources in Europe, China, or North



America are too sparse for your liking. The learning curve is quite gentle for a game of this complexity. There's a narra-

tive on all of the campaigns and a simple tutorial for those of you who staunchly refuse to read manuals (myself included). The only problem I could find with *Railroad Tycoon II* is an annoying glitch that causes the game to quit due to an unreadable resource. I haven't been able to confirm the bug with anyone yet, but it can occur at almost any time and result in the loss of a lot of work. In hindsight, this is almost a good thing, though, as it eventually forced me to remember to eat, sleep, venture outside ... Now, if you'll excuse me, I need to load up that new Iron Duke for a quick run around the Appalachians.

— Alex Handy

The PowerBook Primer

Learn the Ins and Outs of Your New PowerBook

Although a PowerBook offers the same capabilities as a desktop Macintosh, it's really a very different beast. Rugged and yet delicate, the laptop computer has a set of unique components that require your special consideration. This primer helps familiarize you with issues affecting your new PowerBook.

The PowerBook G3 series can get extremely hot after extended use. Toil away for an hour or two with the PowerBook balanced on your lap and you'll understand all too well. The hotter the environment in which you use the PowerBook, the more quickly it heats up. When the computer is struggling with heat, its cooling fan (located in the upper left corner) activates. It's a good signal for the two of you to take a 20-minute break. This gives the computer time to cool down and allows you to rest your eyes and gather your thoughts. (Note however, that Apple has addressed this important venting issue in the brand new G3 series.)

You may eventually notice that several of your display's pixels are continuously lit. Every pixel on your display is made up of three sub-pixels — red, green, and blue — each of which is controlled by its own transistor. Modern PowerBook displays contain over 2.35 million transistors, and occasionally, a small number of them malfunction, getting either stuck on or off. For example, you may notice two green pixels that are constantly lit. Does this mean your PowerBook display is defective? Not necessarily. Apple allows several pixel failures per

display, depending upon their number, location, and proximity to each other. Visit an Apple authorized service provider for a professional opinion if you feel your display may have too many flawed pixels.

A liquid crystal display varies in contrast from top to bottom, depending upon the angle from which it is viewed. From approximately one foot away, you will notice that the top of the screen appears darker and more saturated, while the bottom appears lighter and somewhat washed out. This is normal, but it can be distracting. Thankfully, you can enhance your display in a number of ways. The first thing to do is open the Monitors & Sounds control panel and click the Color button. Click the Calibrate button at the bottom of the next window. You will be walked through a color-adjustment process that enhances the overall contrast of your display. The second thing to do is change your Finder background. Solid colors

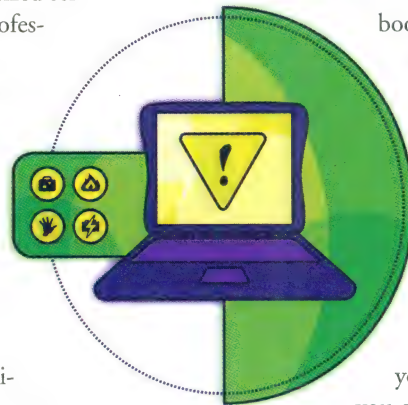
and patterns call attention to the contrast differences. Replace your pattern with a desktop photo that varies from top to bottom, such as a beach scene.

Your display is very sensitive to pressure. Avoid touching the screen with your fingers or pointed objects, such as pencils and pens. Fingerprints can be easily cleaned, but dents and punctures can permanently mar your display.

Although your PowerBook is sturdy, it's not impervious to the elements.

Throwing a PowerBook in a book bag or briefcase can result in dents and scars in its finish and may lead to internal damage from bumping and jarring. Invest in a padded carrying case to protect your new friend.

Since you'll be toting your PowerBook with you everywhere, it will tend to get dirty much more quickly than a desktop Mac. It's important that you clean the computer regularly. Find a soft cloth that doesn't easily lint, as some paper towels will leave nasty flecks of white all over your black backpacker. A mild household glass cleaner will help get rid of stains and smudges. Never spray the cleaner onto the PowerBook, rather spray the cleanser on a cloth and then wipe the surface. To clean the keyboard, buy a can of compressed air and a soft-bristled toothbrush. Use the toothbrush to loosen the dirt and the compressed air to blow it away. ■■■



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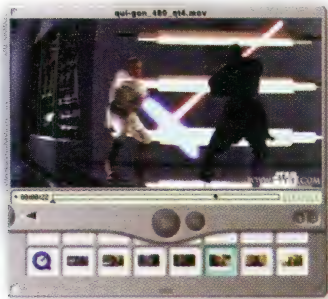
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QuickTime Player Favorites

Apple's snazzy new QuickTime Player, part of the QuickTime 4.0 package, offers several cool new features, including a quick-access Favorites Drawer. Pull the tab below the large Play button and you'll reveal an empty white grid waiting to be filled with your favorite QuickTime movies. You'll no longer waste time searching for movie files — simply click on the Movie icon and it loads immediately.

Adding a movie to your Favorites Drawer is a breeze. Open any movie file with QuickTime Player and then select Add Favorite from the new Favorites menu. Haul out the Favorites Drawer and you'll see that a New Movie icon has appeared.

Unfortunately, you may run into a little snag here. Many movies don't have a poster frame set (a frame picked to represent the movie), and you might just see a small black icon. Not to worry. You can fix this rather easily. The first thing you'll need to do is remove the movie from the Favorites Drawer. Choose Organize Favorites from the Favorites menu. Click once on the movie you just added to the drawer, click Delete, and then click Done to return to the movie window.



You'll now need to select a frame to represent the movie. Click and drag the small black diamond in the ivory progression bar under the movie window.

When you come to a frame you like, select Set Poster Frame from the Movie menu. Drag the black diamond back to the beginning of the movie (all the way to the left), and select Save from the File menu. Now that you've updated the movie with a poster frame, simply choose Add Favorite from the Favorites menu. The icon that appears in the drawer will be a miniature version of the poster frame you selected.

Random Desktop Pictures

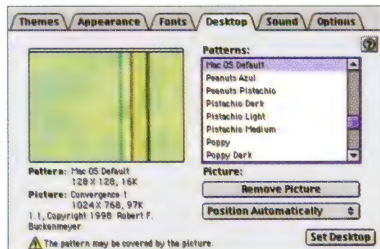
Waking up to the same desktop picture can become frightfully boring after a few days. You might even find yourself switching the image every other day or so to break the monotony. Thankfully, there's a much more fun way to switch images. Mac OS 8.5's Appearance control panel provides an undocumented

way to randomize the desktop pictures of your choice and keep yourself properly entertained.

The first thing you want to do is collect a batch of images that you'd like to see as desktop pictures. Then place them in a single folder in your hard drive. Next, open the Appearance control panel and click on the Desktop tab.

Now, drag your image folder onto the mock desktop at the left of the window. You'll see that an image has been randomly chosen from that folder.

Click Set Desktop and close the control panel. Now, each time you restart, a background image will be randomly chosen from your desktop Pictures folder.



Apple Data Detectors

In theory, we use computers to make our lives easier. They're supposed to automate and simplify repetitive tasks. But as we all know, the theory doesn't always work in practice. Now, there is a simple system addition available that turns the theory into reality.

Apple Data Detectors (ADD) (<http://asu.info.apple.com/swupdates.nsf/artnum/n10064>) harness the power of AppleScript and tie the Internet into any text document on your screen. Say you have a memo with a list of Website addresses or URLs.

To view them, you could highlight, cut, and paste each individual one into your Web browser. Or with ADD installed, you simply highlight the entire block of text and command-click.

In the contextual menu, you'll see an option to open each address in the browser of your choice.

ADD also can pick out e-mail addresses, FTP sites, and even telnet hosts. In fact, ADD can handle any type of Internet address.

The resulting actions aren't just limited to opening those addresses. There are options for adding e-mail addresses to your address book, formatting Web URLs in QuarkXPress, or finding addresses in FileMaker databases.

If you install the Geographic Detectors package, ADD will recognize U.S. cities and states and give you options to look up zip codes or even find maps over the Internet.

ADD doesn't demand that you be precise with your selections either. You can highlight a paragraph, two, or even the entire document, and ADD will pull the appropriate information out.

No more painstakingly highlighting just the URL to cut and paste into your browser. That certainly qualifies as automating and simplifying.

iMacolor Flavors Your Interface

Over the past year, Apple has been making an effort to replace its multicolored logo with solid color variants. The fruit-flavored iMacs, the new Power Macintosh G3s, and the new PowerBook G3s all dispense with the rainbow insignia. One holdout, however, has been the small logo in the top left of the Mac OS interface representing the Apple Menu. Hide Itoh's new iMacolor control panel allows you to correct this oversight with Apple icons in six different colors. As a bonus, you also have the option to upgrade your trashcan to a modern transparent canister in a matching color. You can find iMacolor at <http://vnet.com/Hide/download/> or at <http://www.download.com>. Out with the old and in with the new, as they say!



Resizable Application Menu

Prior to Mac OS 8.5, the Application menu was simply a small icon at the right of the menu bar representing the frontmost application. This was confusing for some new users, particularly those migrating from Windows who expected the active application name to be clearly visible. Apple made an effort to clarify things in Mac OS 8.5 by including both icon and name in the Application menu. You can now have it both ways. If you've got a smaller display and you're worried about menu real estate, you can switch back to the icon-only menu. Simply click on the small divider to the left of the menu and drag it to the right. Poof! The name disappears. And, whenever you feel like it, drag the divider to the left to make the application name visible again.



Extend Your Powerbook Battery's Life

Watching a DVD movie or playing a game will put a serious strain on your battery! Sooner or later, you'll want to eke extra juice from your battery. There are several tried-and-true methods for accomplishing this important task. The first step is to open the Energy Saver control panel and pull the slider all the way over to the left for "Better Conservation."

This puts the computer to sleep much faster when it's idle. The second step is to minimize your use of energy: Set the display to minimum brightness, use the modem sparingly, turn off the volume, and eject any CD or DVD you might have popped in. It goes without saying that you should also avoid activities that call upon all components of your PowerBook.

share your tips!

Got some tips you'd like to share with your fellow MacHome readers? Please send them to:

chris @ machome.com

All mail is assumed intended for publication, and we reserve the right to edit tips for brevity and clarity. When sending your tips, please make sure to include your full name.

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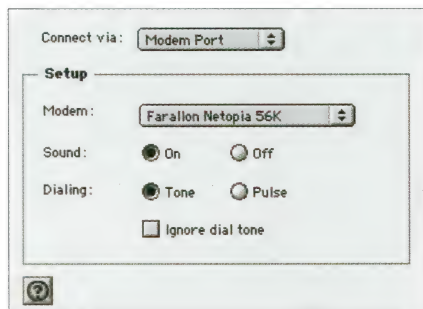
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Slow Download Speeds, Installing Upgrades, Using Two Monitors at Once

Q I have a Performa 6360 with Mac OS 8.5.1 and a SupraExpress 56k modem. We use both Internet Explorer 4.5 and Netscape 4.5. Anytime I download a program using either Browser, my download speed never exceeds 3.5K. What can I do to increase my download speed?

Charles Eichen

A The speed at which you download files depends on several different things, some of which are out of your control. The most important criterion, obviously, is the speed of your modem. At the moment, 56k is the fastest model you can get. It's important to note that 56k refers to 56 kilobits per second,



whereas the speed you see quoted in your browser refers to kilobytes per second. A kilobit (k) is one eighth of a kilobyte (K). Assuming that you can achieve full 56,000-bit-per-second connection to your Internet service provider (ISP), you will be able to download files at a maximum of 7K per second. Unfortunately, it's somewhat of a rarity to connect to your ISP at that rate. In my area, the maximum connection speed I achieve is 44k, meaning that I have a top download rate of 5.5K per second.

The second factor is the capacity of the server from which you are downloading the file. Consider a server that distributes data at 7K per second for up to 20 connections. Should the server host more than 20 connections, its ability to distribute data is compromised. Hosting 40 simultaneous connections can reduce the maximum data flow by 50%, meaning that the server may send data as slowly as 3.5K per second.

The final factor is network traffic. Sometimes there is just too much data being shuttled around the information highway. The more people that log onto the Internet, the more data requested from remote servers, the higher the demands placed on the major data paths around the world. And if the data you've requested gets stuck in heavy traffic, it will take longer to reach you. In North America, the Internet tends to slow in late afternoon on weekdays, as many people arriving home from work immediately log onto the Net. Consider waiting until late at night or the early morning, and lastly, make sure you select the correct modem from the list you'll get at the Modem control panel (see picture).

Q When I buy an upgraded version of a piece of software, can I install it on top of the old version? Or must I locate and remove everything related to the old program? Software publishers do not document this very well. Are there any guidelines you could give me? I am always afraid I am creating future crashes and conflicts if I don't delete the older applications.

Steve Cheshier

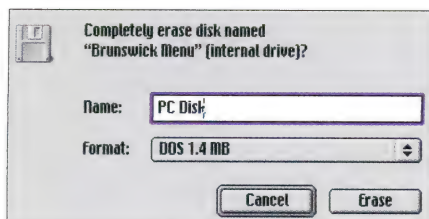
A It's a rarity these days to purchase a new version of an application (or even a discounted upgrade package) that actually demands the presence of the old application. It's common for discounted upgrades to require a serial number from the previous package, but still, there is no requirement for the older application to be installed. When you install most software packages, a new folder is created. For example, if you installed Adobe Illustrator 8.0 and Illustrator 7.0 was already on your hard drive, you'd then find a folder for each application. You can simply trash the Illustrator 7.0 folder when you are ready, assuming you haven't stored any important documents within it.

The only time the original application is required is if you are applying an updater. Updaters, usually distributed online, add code to the existing application to add new features and bug-fixes. Updaters specifically search out previous versions of the application, so they cannot be randomly applied to any piece of software.

Q I understand that it is possible to format a floppy for a PC with the PC Exchange control panel. The control panel came preinstalled on my PowerMac 6500 as part of System 7.6.1. I do not see how to access any formatting command from that control panel. Can you help?

Bob Scott

A PC Exchange works in a very subtle way. You actually don't need to open the control panel at all — there is no

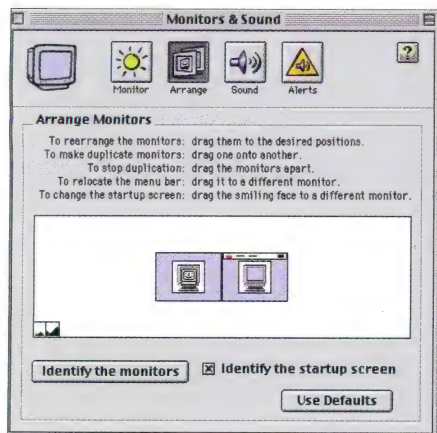


specific command to reformat a disk. Instead, simply stick a disk in the floppy drive. Once it appeared on the desktop, make sure that it doesn't have any important files on it. Highlight it with a single click. Then, from the Special menu, choose Erase Disk. In the Format pop-up menu, select "DOS 1.4 MB". The floppy drive will spring into action and format your disk for PCs.

Q I was wondering how I could I get my Power Macintosh to operate with two monitors at the same time. I once heard I could use my main screen to display what I'm actively working on and the other could display another application or the Finder. Is this configuration possible? Right now, my monitor is connected to my Game Wizard card, and that is looped to my XClaim VR video card. I trust that if I hook up another monitor, it will be a separate screen and won't mirror my primary display. Any ideas?

James Nehring

A It's rather simple to hook an additional monitor to your G3 system. The catch is that you'll need to purchase an additional video card and install it in your Macintosh. There are several lower-end video cards available for under \$100, including the ATI XCLAIM 3D 4MB (\$90). If you decide your needs are more demanding, you might consider



the ix3D Mac Rocket (\$179). Once the card has been installed, you need only hook up the additional monitor. The Mac OS automatically recognizes the second monitor upon startup. At this point, you can use the Monitors control panel to change your preferences. (The Monitors & Sound control panel should work in almost all cases, though an ancillary "Monitors" control panel may be included with in video card's software.) For example, you might have placed your second monitor to the left of the existing monitor. You'll need to specify this location so that you can move items from one display to the next in a natural manner. Drag a window to the left side of the primary display, and it will appear on the right side of the secondary display. Adding a second video card and display is a great way to increase your desktop space. The advantage is that you can segregate applications — use Photoshop on one display while browsing the Net on the other!

Q Sometimes when I'm trying to view a file on a Web page, I get an icon that looks like a jigsaw-puzzle piece with a bar through it. Other than that it's just a black background. What gives?

Bob Ruth

A The file you're trying to access requires a browser plug-in that you don't have. Sometimes it's looking for the QuickTime plug-in, sometimes the RealPlayer plug-in. In most cases, modern browsers will tell you which specific plug-in you need to download. **III**

let us know!

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DVD Hits Prime Time

Dawn of the Digital Versatile Disc

DVD (digital versatile disc) is rapidly becoming a ubiquitous component of computer systems. At the moment, Apple offers DVD drives for all its Mac systems except the iMac — and that should be corrected in the near future.

DVD offers a huge leap in capacity over CD-ROM, packing over four hours of full-motion video onto a single disc. Once again, the technology behind the product is a fascinating application of science.

It's in the Pits!

A DVD looks like a solid piece of plastic, but it's actually a complex sandwich of materials. In between protective plastic layers is a very thin layer of reflective metal, usually 24K gold- or silver-colored alloy. In some cases, there are two layers of reflective metal, the bottom-most layer being semitransparent. Double-sided DVDs are also available; these have two additional metallic layers and can be flipped over to access additional motion picture or data content.

The disc's metal layers house the digital information through a series of dents known as "pits" and flat areas known as "lands." A standard DVD drive uses its laser to read data from the metal layer. Laser light strikes each land and is reflected back to the readers' sensors where a value of "one" is registered. In contrast, laser light that strikes a pit is refracted away from the readers' sensors. When these sensors do not detect reflected light, a value of "zero" is registered. This is a blisteringly fast process — millions and millions of bits can be read each minute. To read the second layer in dual layer discs, the laser's focal length is adjusted.

How then does a DVD hold so much more information than a CD the exact same size? The pits and lands of a DVD are much tinier and more tightly packed than a conventional CD. In addition, digital versatile discs offer a slightly larger data area and save data much more efficiently. To maintain backward compatibility with the traditional CD, the mechanism mimics the rotational speeds and laser movements of a standard CD-ROM drive.

DVD's base capacity is 4.7GB, or twice that with dual data layers. A double-sided disk can thus hold a whopping 17GB of information — well over 25 times the amount of a standard CD.

Sound, Vision, and More

A DVD drive is only one-half of the equation. To view DVD movies, your computer needs an MPEG-2 decoder. MPEG-2 decompression is built into the ATI Rage 128 cards shipping in all new Power Macintosh systems. The original PowerBook G3 Series needs a DVD-PC card, although it's been built onto the logic board in the latest revision.

DVD delivers full-color video up to 30 frames per second at a resolution of 720 x 480, and up to 25 frames per second at 720 x 576, and CD-quality surround sound.

Motion picture DVDs include point and click interfaces that allow you to play the movie or jump directly to scenes. Advanced discs often include widescreen and full-screen versions of the film, different language tracks, closed captioning, bonus documentaries, filmographies, and actor biographies.

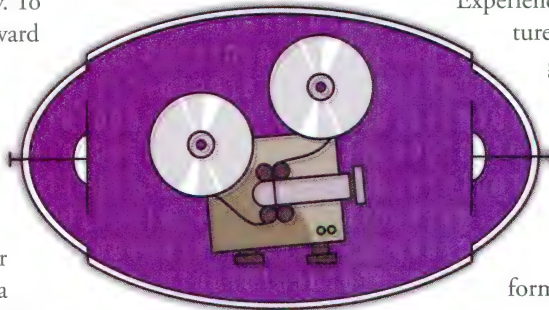
Some DVDs even include games!

Experience a motion picture disc with a gamut of these options and you'll soon toss out your video cassette recorder.

DVDs can be formatted for data use, too, on both Macs and PCs. Games such as *Riven* and *The X-Files* currently ship on multiple discs and require a lot of manual swapping. As DVD permeates the market, we'll see such games shipping on a single disc. Of course, the benefits of DVD extend beyond games. Applications, image libraries, and encyclopedias now shipping on several discs will certainly be rolled onto a single DVD in the future.

Tomorrow, Today

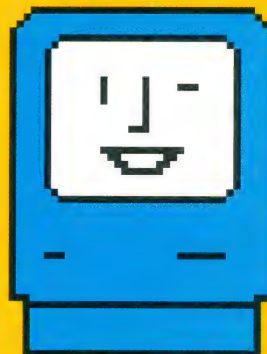
DVD is a rapidly emerging standard destined to be the replacement for the CD-ROM, the VCR, and maybe even your local library. Make sure your next Macintosh is equipped. **MM**



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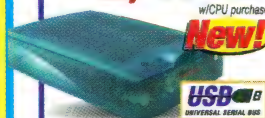
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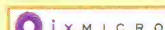


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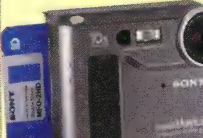
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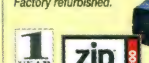
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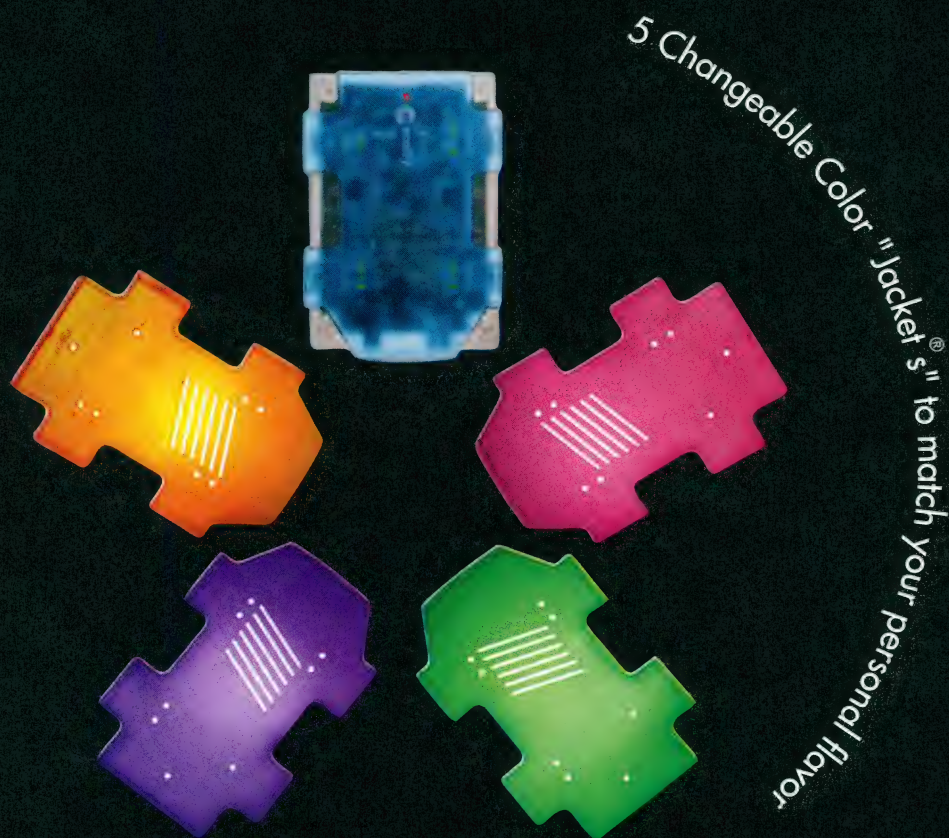
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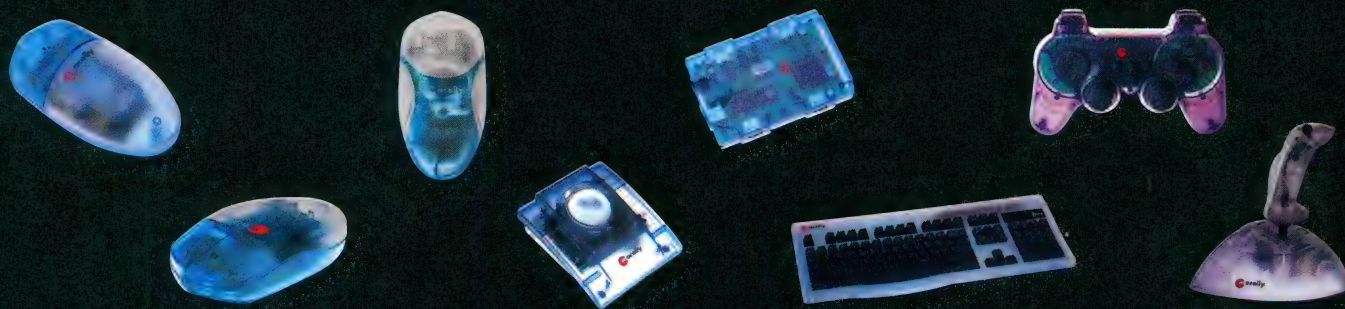
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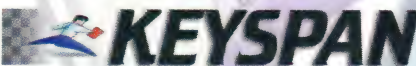
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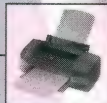
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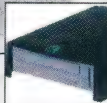
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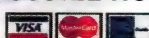
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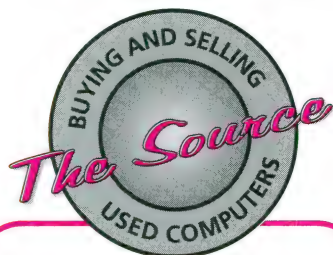
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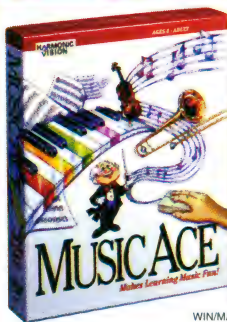
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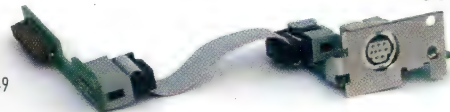


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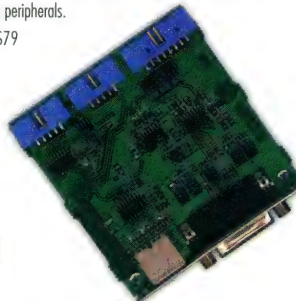


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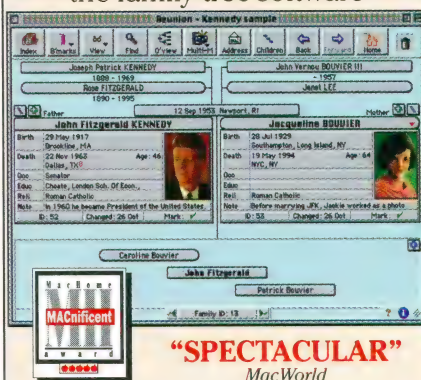
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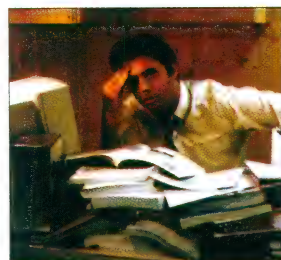
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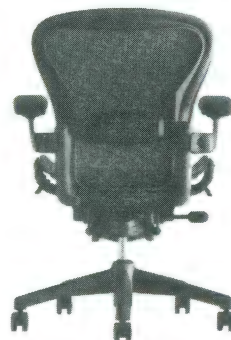
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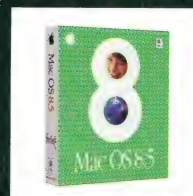
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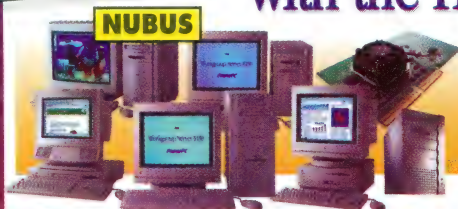


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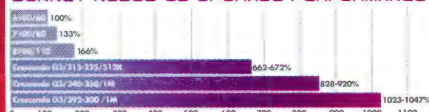


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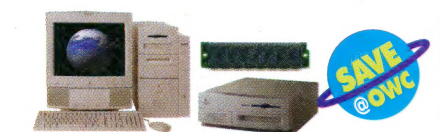
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ihnatkO [Commentary]

By Andy Ihnatko

Thank Me Very Much

In Which The Author at Last Unburdens

It's nigh-time that I officially took credit for Apple's current state of fiscal health. Another Macworld Expo is coming up, and I know that once again, folks are going to be asking me what I think the key was to the turnaround.

"Streamlining and rededication of the company's assets toward its traditional bread-and-butter markets," I usually mutter, hoping to quickly change the subject before the questioner can sense the hollowness behind the words.

But I can no longer live the lie, so I'm here telling you that I did it: it was me, me, me. A while back I'd had enough.

Andy Ihnatko is the Mac industry's 42nd most beloved personality. His colorful and incisive writing graced the pages of MacUser for 9 years. He also popularized the "MacQuarium" concept, in which a Mac is converted to an aquarium. He joins *MacHome* as a monthly columnist with this issue.

Every day I'd grab my morning email and be confronted by the latest batch of rumors about Apple's impending demise. Not the best sort of way to transition from the land

of dreams into this waking vale of tears, so I finally picked up the phone and called a boardmember of my acquaintance. "It's time for this foolishness to stop," I commanded. "You've got all of these lawyers working for you, conducting God knows what sort of negotia-

tions, to no avail. Well, it ends today!" and I gave him The Plan. Not a week later, he collected twenty of Apple's best and brightest minds, including those hitherto ineffectual attorneys. They swallowed their damned pride and made the trip to Microsoft intergalactic headquarters. They paused at the front steps, filled with a sense of the enormity of their undertaking, and then they staged a massive slip-and-fall accident. The settlement on the two dozen personal-injury claims was more than enough to pull Apple back in the black.

Please, no need to thank me, honestly: my uniform is proud to serve. And I'm far from done helping Apple. I want them to return to their heady days of heroic stupidity. Lord, I miss that. There was a time when the company could squander untold millions of dollars on projects of breathtaking scope and vision, whose design imperative was not necessarily to create a marketable product but instead to give the CEO something cool to pose with for his next Business Week cover shot ("Current PowerBooks make the Chairman's butt look sort of big," the internal memo would read. "Could you design a foldable one shaped like an enormous flat

banana?"). Today, we're lucky enough just to get iMacs in Life Savers colors.

But I've got a flawless one-word solution: eBay, the online auction house. Go to www.ebay.com and do a search on Macintosh (rare, weird, prototype). Within seconds, you'll be presented with a list of secret, one-of-a-kind Apple prototypes which have mysteriously fallen into private hands. You might see an amazingly super-cool slim black box adorned with an elegant six-color Apple logo. This was another one of those brilliantly silly ideas, which was basically to write a whole new OS and \$499 hardware platform which would compete with \$129 video game machines and \$10-a-month cable boxes. But it really is a super-cool-looking black box, and so recently one of these things auctioned on eBay for over three thousand dollars. An item's exotic, illicit nature is key to an astronomical selling price.

So you think I want Apple to auction its warehouse of prototypes on eBay. No, no. I want Apple to make up thousands of little peel-and-stick Apple logos. They should then stick them on more or less whatever they've got at hand...monitors, pagers, featureless slabs of raw black magnesium and/or brushed aluminum, staplers, employees they're about to downsize, etc. These are then auctioned off through a series of nameless fronts, each feigning ignorance as to the item's true nature. In doing so, a \$5 Fisher-Price fire engine with a \$.40 logo and about \$3 of interface connectors hastily glued on it can quickly and anonymously be converted to enough dough to fund a research study into the feasibility of a G4-based lawn mower.

As for the real prototypes, the Swatches, the Pippins, the Knowledge Navigators... those go to me. 

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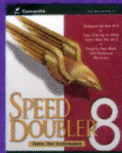
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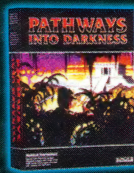
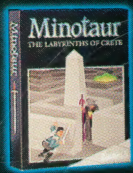
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